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# Smoking Status of Family Physicians and Their Attitude on Smoking Cessation

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## ABSTRACT

**Objectives:** Quitting smoking plays a vital role in preventing chronic diseases. Family physicians have an important role in smoking cessation processes. This study aimed to investigate the smoking status of family physicians who were working in the Family Health Centers in Istanbul and their knowledge and attitudes toward smoking cessation.

**Methods:** In this study, an online survey was used to collect data from family physicians in Istanbul in 2019. The survey questions were sent to the family physicians using an e-mail and the physicians were asked to voluntarily answer the questions in the survey.

**Results:** Total 237 physicians filled out the questionnaires and 133 (56.1%) of participants was male. The number of participants with response to smoking status as current smokers, former smokers, and never smokers were 46 (21.1%), 45 (20.5%), and 128 (58.4%), respectively. Among the participants, 37 (15.6%) were family physicians who were specialists, 43 (18.2) were aged between 41 and 45 years, and 122 (51.5%) were practicing family medicine for 7 to 9 years. The median Fagerström score of smokers was 3.0 [5.0] points. Nicotine replacement therapy was the most prominent application in the smoking cessation process according to 195 (84.3%) participants.

**Conclusion:** Family physicians need to be encouraged to quit smoking and provide smoking cessation counseling.

**Keywords:** Family physicians, primary health care, smoking, smoking cessation



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## INTRODUCTION

Cigarettes are considered one of the most dangerous products globally. They are considered one of the main preventable causes of diseases, such as lung cancer, chronic obstructive pulmonary disease, and coronary heart disease.<sup>[1]</sup> Compared to several drugs or traffic accidents or even pandemics, smoking causes death of more individuals.<sup>[2]</sup>

Quitting smoking plays an important role in preventing chronic diseases.<sup>[3]</sup> Smoking plays a role in shortening the average life span by up to 10 years.<sup>[4]</sup> It is also reported that there are more than a billion smokers worldwide and that smoking plays a role in the death of approximately six million individuals annually.<sup>[5]</sup> In contrast, with stronger policies consistent with the World Health Organization (WHO), smoking prevalence can be reduced by 25% within 5 years.<sup>[6]</sup>

More than 25% of the European population are smokers.<sup>[7]</sup> Europe is one of the regions with the highest tobacco-related mortality rates, and approximately 16% of all deaths are

associated with tobacco use.<sup>[8]</sup> Despite the recently observed decline in the prevalence of smoking, tobacco use in high-income countries remains an important risk factor of disease and death.<sup>[9]</sup> Many countries are establishing programs aimed at smoking cessation.<sup>[10]</sup> However, public awareness of the health risks from smoking is not yet at the desired level.<sup>[11]</sup>

A study showed that smoking cessation interventions performed by health professionals may increase smoking cessation rates.<sup>[12]</sup> However, the habit of smoking is extremely common among healthcare professionals, and this situation always harms patients.<sup>[13]</sup> Despite this, it should be noted that non-smoking healthcare providers can persuade patients to quit smoking more easily.<sup>[14]</sup> The five As (ask, advise, assess, assist, and arrange) and five Rs (relationship, risks, rewards, roadblocks, repetition) models are recommended by the WHO.<sup>[15,16]</sup>

Primary healthcare physicians have an essential role in quitting smoking.<sup>[12]</sup> Being a cosmopolitan city, Istanbul may reflect the conditions of its diverse population. Therefore, the results of a study on the smoking status of family physicians in Istanbul may contribute to a better understanding of the current situation in the region.

This study aimed to investigate the smoking status of family physicians who were working in the Family Health Centers in Istanbul and their knowledge and attitudes toward smoking cessation.

## METHOD

In this study, data was collected from the primary healthcare physicians working at the Family Health Centers affiliated with Istanbul Provincial Health Directorate in 2019. In the city of Istanbul, there were a total of 3868 primary healthcare physicians working at the Family Health Centers affiliated with the Istanbul Provincial Health Directorate in 2019.<sup>[17]</sup> A questionnaire was sent to all family physicians working in the relevant centers through their official e-mails (@saglik.gov.tr), and they were invited to voluntarily participate in that research survey. The Fagerström Test for Nicotine Dependence (FTND) was calculated only based on the answers of the current smokers. Therefore, FTND and smoking-related questions were not evaluated in the non-smokers and former smokers participating in the study.

The questionnaire, which was conducted in the study, consisted of 28 questions. In this questionnaire, five questions were about demographic characteristics, seven questions were about knowledge and attitudes of physicians toward smoking cessation, and 16 questions examined their smok-

ing status, six of which were constituted by the FTND.

The participants were determined as “never smokers,” “current smokers,” and “former smokers” that had quit smoking at the time of interview. In scoring the FTND, binary items are scored from 0 to 1 and multiple-choice items are scored from 0 to 3.<sup>[18]</sup> The items are summed to yield a total score of 0–10. The higher the total FTND score, the more intense the patient's physical dependence on nicotine. According to this test, participants who scored 0–2 are classified as having low dependence, participants who scored 3–7 are classified as having moderate dependence, and those who scored 8–10 are classified as having high dependence on nicotine. Each questionnaire can be completed in approximately 15 min. The validity and reliability of Turkish version of the FTND test was conducted by Uysal et al.<sup>[19]</sup>

SPSS 22.0 program was used in the analyses. In the descriptive statistics of the data, frequency, percentage, median and interquartile range were used.

## RESULTS

A total of 237 physicians filled out the questionnaire. Sociodemographic characteristics of the participants are shown in Table 1.

The numbers of participants with response to smoking status question as current smokers, former smokers, and never smokers were 46 (21.1%), 45 (20.5%), and 128 (58.4%), respectively. Smoking status of participants is shown in Table 2. Of the 219 (92.4%) smokers, smoking experiences of the current and former smokers are shown in Table 3. Among them, the median FTND of current smokers was 3.0 [5.0] points. If the smokers are classified according to their scores as 0–2 points, 3–7 points, and 8–10 points, the numbers of the participants in each group were 21 (42.9%), 22 (44.9%), and 6 (12.2%), respectively. The attitude of current smokers about about quitting smoking is shown in Table 4.

One hundred and forty-one (59.5%) of the 237 participants stated that they provided smoking cessation counseling. The attitude of the participants about smoking cessation is shown in Table 5.

In this study, nicotine replacement therapy (NRT) was shown as the most prominent application in the smoking cessation process according to 195 (84.3%) participants. It was also observed that 86 (36.3%) of the participants did not recall the phone number of the smoking cessation line, and 109 (46.0%) could not remember the phone number of the cigarette complaint line.

**Table 1.** Sociodemographic characteristics of the participants

	n (%)
Gender	
Male	133 (56.1)
Female	104 (43.9)
Age groups	
20-25 years	1 (0.4)
26-30 years	51 (21.5)
31-35 years	31 (13.1)
36-40 years	25 (10.5)
41-45 years	43 (18.2)
46-50 years	40 (16.9)
51-55 years	29 (12.2)
56-60 years	12 (5.1)
61 years and older	5 (2.1)
Occupational title	
Family medicine practitioner	200 (84.4)
Family medicine specialist	37 (15.6)
How long have you been a medical doctor?	
1-3 years	36 (15.3)
4-6 years	21 (8.9)
7-9 years	20 (8.5)
10-12 years	32 (13.6)
13-15 years	15 (6.5)
16-18 years	19 (8.2)
19-21 years	21 (8.9)
22-24 years	18 (7.6)
25 years and over	53 (22.5)
How long have you been practicing family medicine?	
1-3 years	66 (27.8)
4-6 years	23 (9.7)
7-9 years	122 (51.5)
10-12 years	24 (10.2)
13-15 years	1 (0.4)
16-18 years	1 (0.4)

## DISCUSSION

Our study provides substantial data on the topic of smoking and cessation concerning family physicians in Istanbul, which is a cosmopolitan city in Turkey. In the current study, more than half of the family physicians that participated in the survey were male and approximately one-fifth of the physicians were smokers. The median FTND of smokers indicated a moderate level of nicotine dependence. While more than half of the physicians were providing smoking cessation counseling, only one-fifth of the participants believed that the medical education they received was

**Table 2.** Smoking status of the participants

	n (%)
Current smokers	
Male	29 (63.1)
Female	17 (36.9)
Former smokers	
Male	35 (77.8)
Female	10 (22.2)
Never smokers	
Male	62 (48.4)
Female	66 (51.6)
Some data is missing.	

preparing them for smoking cessation counseling satisfactorily. Most participants knew the phone numbers of the smoking cessation line and cigarette complaint line, and NRT was accepted as the most prominent application in the smoking cessation process.

Some studies that have been conducted in Turkey show that the smoking rate in male physicians is approximately 40%–55%, while the smoking rate for female physicians is approximately 30%–45%.<sup>[20,21]</sup> In a study conducted by Baltacı et al., smoking habit was extremely common, and its prevalence in male family physicians was higher than in female family physicians.<sup>[22]</sup> It was also observed that the smoking cessation training received before and after graduation was not satisfactory for family physicians.

Another study conducted by Gokirmak et al. showed that 41.7% of the primary care practitioners were smokers.<sup>[23]</sup> Most smokers were male, and 32% of them felt “ready” to quit smoking immediately. Approximately 13.5% of the general practitioners did not routinely recommend their patients to quit smoking. Only 17.3% of the practitioners received training related to smoking cessation while they were studying medicine, and 21.6% of the general practitioners attended special conferences, symposiums, and workshops on the subject. Accordingly, only 14.6% of the general practitioners felt “ready” to offer counseling to patients, while 56.2% felt partially prepared about this. The percentage of general practitioners who stated that they “did not feel very ready” to offer counseling on smoking cessation was approximately 26%. Having previous training on smoking cessation was associated with more advice on quitting smoking.

In the study conducted by Tekin et al., approximately 20% of the physicians stated that they knew the methods on smoking cessation.<sup>[24]</sup> Moreover, 70% of the physicians stat-

**Table 3.** Smoking experiences of current and former smokers

	n (%)
How long have/had you been a smoker?	
1 year	7 (7.5)
2 years	3 (3.2)
3-4 years	5 (5.3)
5-6 years	10 (10.8)
7-8 years	10 (10.8)
9-10 years	13 (14.0)
Over 10 years	45 (48.4)
How many packs (of cigarettes) per day do you smoke?	
0.5 pack (10 or less cigarettes)	42 (45.2)
1 pack (11-20 cigarettes)	42 (45.2)
1.5 packs (21-30 cigarettes)	5 (5.4)
2 packs (31-40 cigarettes)	3 (3.2)
3 packs (41-60 cigarettes)	1 (1.0)
How soon after you wake up do you smoke your first cigarette?	
Within 5 minutes	7 (15.2)
6-30 minutes	15 (32.6)
31-60 minutes	8 (17.4)
After 60 minutes	16 (34.8)
Do you smoke when you are so ill that you are in bed most of the day?	
Yes	21 (45.7)
No	25 (54.3)
Do you find it difficult to refrain from smoking in places where it is forbidden?	
Yes	13 (28.3)
No	33 (71.7)
Do you smoke more frequently during the first hours after waking than during the rest of the day?	
Yes	12 (26.1)
No	34 (73.9)
Is the first cigarette in the morning the one which would you hate most to give up?	
Yes	21 (45.7)
No	25 (54.3)
Some data is missing.	

ed that they regularly advised their patients to quit smoking, 23% noted that they provided occasional advice. Furthermore, 6.7% of the physicians stated that they did not provide any advice to their patients. Additionally, 36.4% of the physicians who participated in this study stated that most of the time they regularly show support in smoking

**Table 4.** Attitude of current smokers about quitting smoking

	n (%)
How many times have you tried to quit smoking?	
Never	5 (10.9)
1-2 times	22 (47.8)
3-4 times	12 (26.1)
5-6 times	3 (6.5)
7-8 times	1 (2.2)
9 times and more	3 (6.5)
Do you want to quit smoking?	
I do want seriously	8 (17.4)
I want	22 (47.8)
I don't want	4 (8.7)
I can try	12 (26.1)
Can you quit smoking if you want?	
I can quit	29 (63.0)
I can't quit	2 (4.4)
I don't know	15 (32.6)

cessation, while almost half of the physicians stated that they occasionally support it. Almost one-fifth of the physicians stated that they did not provide any support to their patients in this regard.

The study conducted by Aydin et al. found that the number of family physicians who smoke is high in both genders.<sup>[25]</sup> As for smoking cessation, women participate more in postgraduate training programs on smoking cessation. Female former smokers feel more prepared for smoking cessation interventions. The basic factor of steps of asking and supporting was found as postgraduate education.

The study conducted by Baltacı et al. showed that tobacco use is extremely common among family physicians.<sup>[26]</sup> The situation is similar in the general population in Turkey compared to that in European countries. Among family physicians, the rates of current smokers, former smokers, and never smokers were 34.1%, 14.7%, and 51.3%, respectively.

Quite a few studies on the issue of healthcare workers' attitudes on smoking have been published from other parts of the world.<sup>[27-40]</sup> A few of them focused on primary care workers and family physicians.<sup>[30,31,33,39,40]</sup> In France, approximately one-third of primary healthcare physicians are smokers, and two-thirds of the physicians' report that they recommend NRT to their patients.<sup>[30]</sup> Studies in France support the idea that more professional participation is required to reduce smoking rate in practitioner physicians, and more education on the important role of physicians

**Table 5.** Attitude of the participants about smoking cessation

	n (%)
Do you think giving cessation advice is an important medical activity?	
No response	15 (6.3)
Very important	129 (54.4)
Important	76 (32.1)
Not important	8 (3.4)
I have no idea	9 (3.8)
Have you ever given smoking cessation counselling?	
No response	11 (4.6)
Yes	141 (59.5)
No	85 (35.9)
How adequate would you feel if you give smoking cessation counselling?	
No response	11 (4.6)
Quite adequate	11 (4.6)
Adequate	66 (27.9)
Not adequate	88 (37.1)
I have no idea	61 (25.8)
Do you think that your medical education prepared you for smoking cessation counselling adequately?	
No response	9 (3.8)
Quite adequate	7 (3.0)
Adequate	41 (17.3)
Not adequate	155 (65.4)
I have no idea	25 (10.5)

in the population-wide encouragement to quit smoking is needed.<sup>[30]</sup> According to the study conducted by De Col et al., the rate of active smoking in general practitioners in Maine-et-Loire was 18%.<sup>[31]</sup> Smoker physicians were less inclined to ask their patients if they smoked and believed that their smoking was not related to the basic recommendations they make about smoking. Basic smoking cessation advice was regularly provided by 20% of physicians, regardless of their smoking status.

The study conducted by Mahmud et al. showed that 31% of the physicians in Lahore, Pakistan were smokers.<sup>[33]</sup> Moreover, many physicians could not calculate the pack-year, and the same proportion of physicians did not have sufficient information on the chemicals in tobacco smoke. Only 22% of the participants correctly listed the five dangers of smoking tobacco. Furthermore, 55% had an insufficient level of knowledge on pharmacological management for smoking cessation, and 36% had a moderate level of knowledge, only 5% had a good level of knowledge and

36% of the participants did not even know a single danger associated with passive smoking. The results suggest that there is a lack of basic information in family physicians about the dangers of tobacco, smoking, and smoking cessation strategies, including behavioral and pharmacological treatment methods.

In a study conducted in the USA, most family physicians reported that they asked about smoking habits of their patients, advised them to quit, and supported them in their efforts to quit, and almost 50% reported that they provided a follow-up appointment.<sup>[39]</sup> Almost all primary care physicians reported that they consistently "asked" their patients about smoking, "advised" that smoking patients quit, and "assisted" smoking patients with "any" smoking cessation strategy. Fewer practitioners "arranged" a follow-up visit with their patients to address smoking. A previous study found slightly lower estimates for provider self-reported delivery of "ask" (95%), "advise" (95%), "assess" (91%), "assist" (87%), "arrange" (17%) and these variations could be due to differences in survey methodology, questions used on the questionnaires, or subgroup distribution.<sup>[40]</sup> Approximately half of the primary care physicians reported that they consistently arranged a follow-up visit.

As a limitation of the study, the rate of interest of family physicians to a questionnaire study on smoking was low. Participants' rates of responding to questions related to their smoking habits and their own experience and approaches to smoking cessation are also remarkably low. Hence, in this study, only "descriptive statistics" were performed rather than analytic statistics. There is a need for minimal sample sizes to provide adequate power to distinguish the normal distribution from other distributions so that failure to find a significant deviation from normality carries with it a reasonable degree of confidence that the data are consistent with that distribution. Although the questionnaire was sent to all family physicians working in relevant centers using their official e-mails through the Istanbul Provincial Health Directorate, participation was completely voluntary. Nevertheless, the number of the participants was still higher than the potential number that many other cities may have. Further studies using a parametric statistical test with larger sample sizes are needed.

## CONCLUSION

It is a contradiction that family physicians, who play an important role in smoking cessation processes, are smokers. Although family physicians are quite knowledgeable about smoking cessation, they need to have more experience. Family physicians should be trained on smoking cessation during undergraduate education and afterward.

Medical education programs need to improve their curriculum quality concerning smoking cessation. In smoking cessation, family physicians should be advised to routinely ask about their patients' smoking habits and advise all their smoker patients to quit smoking. These interventions include various strategies, such as asking patients if they smoke, advising smokers to quit smoking, evaluating their motivation to quit smoking, supporting smokers who tend to quit smoking and providing follow-up appointments.

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