

Original Article



Assessing the Frequency of Smoking Status Inquiries: A Cross-sectional Analysis

Ömer Faruk Özceylan¹, Rumeysa Betül Kaya², Zeynep Uzun², Turan Set²¹Clinic of Family Medicine, Araklı Bayram Halil State Hospital, Trabzon, Türkiye²Department of Family Medicine, Karadeniz Technical University Faculty of Medicine, Trabzon, Türkiye

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ABSTRACT

OBJECTIVE: This study aimed to evaluate the frequency with which smoking status was inquired about and smoking cessation advice was provided during patients' previous outpatient clinic visits.

MATERIAL AND METHODS: This cross-sectional study was conducted at the Department of Family Medicine, Karadeniz Technical University Faculty of Medicine. Patients aged 18 years or older who voluntarily applied to the family medicine outpatient clinic were included. A total of 384 participants were administered a questionnaire, prepared by the researchers, that assessed sociodemographic characteristics and inquired about smoking status during previous visits, using the face-to-face interview method.

RESULTS: The mean age of the participants was 30±12.2 years, and 65.1% (n = 250) were female. Active smoking was reported by 22.1% (n = 85) of the participants. The rate of inquiry about smoking status at the participants' most recent outpatient visit was 28.4% (n = 109). Among current smokers, 28.2 (n = 24) received smoking cessation advice. Among current smokers, 11.8% (n = 10) had never received smoking cessation advice during previous medical encounters.

CONCLUSION: Inquiring about smoking status is a crucial step that should not be overlooked during any medical consultation. To provide effective smoking cessation recommendations, it is essential to identify tobacco users. Therefore, every patient encounter should be used as an opportunity for intervention.

KEYWORDS: Tobacco use, physician's practice patterns, primary health care, smoking

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INTRODUCTION

Tobacco use is one of the leading causes of preventable morbidity and mortality on a global scale.¹ Approximately one-tenth of all deaths in 2021 were attributable to smoking, resulting in an estimated 142 million years of life lost. If current trends persist, smoking is estimated to cause an additional 2.04 billion years of life lost between 2022 and 2050.² Furthermore, research indicates that tobacco use accounts for approximately 9% of all deaths worldwide.³ It has been demonstrated that quitting smoking around the age of 50 reduces smoking-related health risks by nearly half; however, these risks can be almost entirely avoided when cessation occurs at an earlier age.⁴

Although the health benefits of smoking cessation are well-established, the clinical response to this public health crisis remains suboptimal. In a study evaluating more than 148,000 participants, approximately three-quarters of tobacco users did not receive any cessation support.⁵ Another study involving individuals satisfied with their smoking habits provided a 5-minute intervention, which included an inquiry into their smoking status and perceptions of cessation, followed by a briefing on nicotine addiction and its harms. Only 0.82% of participants requested cessation support after the initial interview; this rate increased to approximately 30% following three monthly follow-up sessions.⁶ Furthermore, another study conducted among current smokers found that 73.6% of participants believed that physician advice would be effective for smoking cessation.⁷ Collectively, these data suggest that the failure to systematically inquire about smoking status is a missed opportunity for evidence-based intervention.

Corresponding author: Ömer Faruk Özceylan, MD, e-mail: o.farukozceylan@gmail.com



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Smoking cessation advice provided by physicians positively influences users' efforts to quit. Indeed, the results of a meta-analysis indicate that brief counseling can increase the likelihood of a successful quit attempt by approximately 66%.⁸ However, to provide such advice, it is first necessary to identify individuals who smoke; in other words, smoking status must be systematically ascertained. Screening for tobacco use and offering cessation advice are essential components of medical history-taking that no physician should overlook. Clinicians are obligated to inquire about the smoking status of all presenting patients and to strongly recommend cessation to those who use tobacco. This study aims to evaluate the frequency with which smoking status is inquired about and cessation counseling is provided during prior examinations of patients presenting to our outpatient clinic.

MATERIAL AND METHODS

Study Design

This cross-sectional study was conducted between February and August 2025 in the Department of Family Medicine, Faculty of Medicine, Karadeniz Technical University. The study included volunteer patients aged 18 years and over who presented to the family medicine outpatient clinic and had attended at least one other outpatient clinic within the previous 3 months. This 3-month timeframe was established to ensure that participants could accurately recall their smoking status.

Individuals with physical and/or mental disorders severe enough to preclude participation in the interview, and those who were unable to understand or speak Turkish, were excluded from the study.

Data Collection

Volunteers who met the inclusion criteria were asked to complete an informed consent form. The researchers developed a structured questionnaire to evaluate sociodemographic characteristics, smoking status, and whether smoking habits had been inquired about during previous outpatient visits. Individuals who had previously smoked but had not done so for at least 6 months were defined as "former smokers". The questionnaire was administered to the participants through face-to-face interviews.

Sample Size Calculation

For a population of unknown size, the sample size was calculated as 384, assuming a 50% frequency of smoking status, a 95% confidence level, a 5% margin of error, and a type 1 error rate (alpha) of 0.05. The sample size calculation

was performed using OpenEpi Version 3. Data from a total of 384 patients were included in the analysis.

Ethical Approval

For this study, approval was obtained from the Karadeniz Technical University Faculty of Medicine Scientific Research Ethics Committee on July 8, 2024, under protocol number 2024/139. Written informed consent was obtained from all participants.

Statistical Analysis

Data were analyzed using IBM SPSS Statistics version 22.0 (IBM Corp., Armonk, NY, USA). Statistical analyses were performed by the researchers. Descriptive statistics were performed, and the relationships between variables were analyzed using the chi-square test. Significant associations were further examined using adjusted standardized residuals to identify specific cells contributing to the overall statistical significance. The level of statistical significance was set at $P < 0.05$.

RESULTS

The mean age of the participants was 30 ± 12.2 years, and 65.1% ($n = 250$) were female. Students constituted 30.5% ($n = 117$) of the study group; 60.7% ($n = 233$) had attained a university-level education. Furthermore, 22.1% ($n = 85$) of the participants were current smokers. The sociodemographic characteristics of the participants are presented in Table 1.

Table 1. Sociodemographic characteristics of the participants

		n (%)
Sex	Male	134 (34.9)
	Female	250 (65.1)
Occupation	Student	117 (30.5)
	Hospital staff	84 (21.9)
	Doctor	50 (13)
	Nurse	37 (9.6)
	Other	96 (25)
Educational attainment	Primary school or lower	12 (3.1)
	Middle school	19 (4.9)
	High school	68 (17.7)
	University	233 (60.7)
	Postgraduate	52 (13.5)
Smoking status	Current smoker	85 (22.1)
	Former smoker	21 (5.5)
	Never smoker	278 (72.4)
Comorbidity	None	249 (64.8)
	Hypertension	29 (7.6)
	Hypothyroidism	26 (6.8)
	Psychiatric disorder	19 (4.9)
	Diabetes mellitus	12 (3.1)
	Other	49 (12.8)

Main Points

- Approximately half of the smokers have never attempted to quit smoking.
- The evaluation of smoking status is frequently neglected during outpatient clinic visits.
- Although smoking status was ascertained, one-quarter of smokers were not advised to quit.

The median age of smoking initiation was 20 [interquartile range (IQR): 18–25], with a median of 10 pack-years (IQR: 2–20). Evaluation of the smoking cessation history of current and former smokers showed that 48.1% (n = 51) had no prior quit attempts. The distribution of smoking cessation attempts among current and former smokers is presented in Table 2.

Among the 55 participants who had previously attempted to quit smoking, the median duration of smoking cessation was 8 months IQR: 1–12.

The rate of smoking status inquiry at the participants' most recent outpatient visit was 28.4% (n = 109). Among individuals who were active smokers, 37.6% (n = 32) were questioned about their smoking habits. Furthermore, 75% (n = 24) of the smokers who were screened during their last visit received smoking cessation counseling. This represented 28.2% (n = 24) of all current smokers in the study.

When the relationship between the outpatient clinic attended and the inquiry into smoking status was examined, it was found that 70.8% (n = 17) of patients who attended the chest diseases clinic and 62.5% (n = 5) of patients who attended the cardiology clinic were asked about their smoking status. The association between the last visited outpatient clinic and the status of smoking inquiry is presented in Table 3.

Table 2. Smoking cessation attempts among current and former smokers

	n (%)
None	51 (48.1)
Unassisted	40 (37.7)
Physician-assisted	9 (8.5)
Family support	5 (4.7)
Quitline	1 (1)

Table 3. Association between the last visited outpatient clinic and the status of smoking inquiry

The most recently visited clinic	Status of smoking inquiry at the last visit		P
	Yes [n (%)]	No [n (%)]	
Chest diseases	17 (70.8)	7 (29.2)	<0.001
Cardiology	5 (62.5)	3 (37.5)	
Family medicine	57 (50)	57 (50)	
Obstetrics and gynecology	9 (37.5)	15 (62.5)	
Internal medicine	12 (36.4)	21 (63.6)	
Emergency medicine	5 (8.6)	53 (91.4)	
Ophthalmology	1 (6.3)	15 (93.8)	
Dermatology	1 (3.7)	26 (96.3)	
Physical medicine and rehabilitation	0 (0)	15 (100)	
Orthopedics	0 (0)	12 (100)	
Otorhinolaryngology	0 (0)	11 (100)	
Others	2 (4.8)	40 (95.2)	
Total	109 (28.4)	275 (71.6)	

Among current and former smokers, in response to the question, "Would your doctor's recommendation to quit smoking at the outpatient clinic influence your smoking cessation behavior?", 29.2% (n = 31) responded "Yes", 49.1% (n = 52) responded "No", and 21.7% (n = 23) were undecided (Figure 1).

When the relationship between smoking status and the perceived impact of a physician's recommendation on smoking cessation was examined, 23.5% (n = 20) of current smokers and 52.4% (n = 11) of former smokers believed that the physician's recommendation would influence their cessation behavior. Former smokers were significantly more likely to perceive physician advice as effective, whereas current smokers were significantly more likely to perceive it as ineffective. The association between smoking status and the perceived impact of physician advice is presented in Table 4.

Among current smokers, 11.8% (n = 10) had never received any advice to quit smoking.

DISCUSSION

This study revealed that smoking status was not inquired about in more than two-thirds of outpatient clinic visits. Furthermore, even among current smokers who were questioned about their smoking status during their visit, one-quarter were not provided with any smoking cessation advice.

More than one-fifth of the participants were current smokers. The smoking rate among our participants was lower than the overall smoking prevalence in our country. This relatively low number of smokers may be attributed to the high proportion of female participants in our study. Indeed, it has been reported that 42.9% of men and 17.5% of women in our country use tobacco products.⁹

The median age of smoking initiation among participants was 20 years. According to national data, the average age at initiation of tobacco use has been determined to be 18.1 years.¹⁰ By including only individuals over the age of 18 in our study, we may have observed a slightly higher age of smoking initiation.

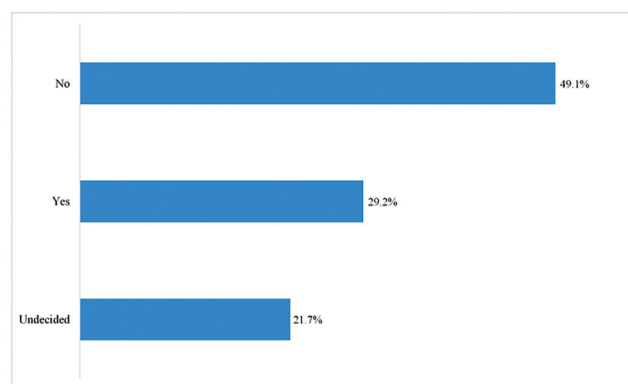


Figure 1. Perceived impact of physician advice on smoking cessation behavior among current and former smokers (distribution of responses to the question, "Would your doctor's recommendation to quit smoking at the outpatient clinic influence your smoking cessation behavior?")

Table 4. The relationship between smoking status and the perceived impact of physician advice on smoking cessation				
Smoking status	Perceived influence of doctor's recommendation			P
	Yes [n (%)]	No [n (%)]	Undecided [n (%)]	
Current smoker	20* (23.5)	47* (55.3)	18 (21.2)	0.016
Former smoker	11* (52.4)	5* (23.8)	5 (23.8)	
*Indicates cells with an absolute adjusted standardized residual >1.96, corresponding to P < 0.05				

Less than one-tenth of current and former smokers had attempted to quit based on a physician's recommendation. Furthermore, among current smokers whose smoking status was inquired about during their last visit, one-quarter did not receive any advice to quit. Approximately one-third of participants believed that a doctor's recommendation would be effective in helping them quit smoking. Research on physician attitudes toward tobacco use has shown that only 19.6% of clinicians consider providing cessation advice to be beneficial;¹¹ furthermore, another study reported that over 40% of physicians do not view assisting with smoking cessation as part of their professional responsibility.¹² Consequently, this perception among physicians may explain why smoking status was not inquired about, and cessation advice was not provided. In a study by Yeşiloğlu et al.¹³, which focused on smoking cessation by emphasizing lung cancer symptoms and the relationship between lung cancer and smoking, it was found that 4.8% of participants who had not previously considered quitting eventually did so. This suggests that brief interventions or advice provided by physicians can lead to smoking cessation or change participants' attitudes toward smoking.

Approximately three-quarters of participants were not questioned about their smoking status during their outpatient clinic visits. In contrast, a study evaluating patients attending 11 primary care settings found that approximately 89% of participants were screened for smoking status and 67% of those screened were referred for counseling.¹⁴ In a Hungarian study, 25% of smokers received smoking cessation counseling.¹⁵ Another primary care-based study involving more than 11,000 smokers found that approximately half of participants received advice or counseling for smoking cessation.¹⁶ In our study, the rate of inquiry about smoking status was considerably lower than reported in the literature. To combat smoking—a global public health problem—it is of paramount importance first to identify users.

The departments that most frequently inquired about smoking status were chest diseases, cardiology, and family medicine. Notably, smoking status was never ascertained in departments such as physical medicine and rehabilitation, orthopedics, and otorhinolaryngology. A study of more than 4,000 smokers found that medical diagnoses (48%) and respiratory symptoms (36%) were the most frequently cited reasons for quitting.¹⁷ In a study involving nurses, 43% reported always inquiring about tobacco use, whereas only 2.7% reported always assisting patients with smoking cessation.¹⁸ Therefore, it is essential to inquire about the smoking status of every individual visiting an outpatient clinic, to provide cessation advice by associating it with their current symptoms, and to refer them to counseling services.

Former smokers reported that physician recommendations had a greater influence on their cessation behavior than on that of current smokers. Sornpaisarn et al.¹⁹, in a study examining methods that influence successful smoking cessation, found that former smokers were more likely than those who continued to smoke to have quit because of disease-related motivation. Similarly, in our study, those who had successfully quit smoking placed a higher value on physician advice.

Study Limitations

This study had several limitations. The assessment of whether smoking status was inquired about or cessation advice was provided relied on participants' self-reports, which may be subject to recall bias. Because the number of participants attending certain outpatient clinics was relatively low, these findings may not fully represent rates across all departments.

CONCLUSION

Smoking status was not inquired about in approximately 70% of outpatient clinic examinations. Furthermore, a substantial number of participants who were asked about their smoking status did not receive smoking cessation advice. Inquiring about smoking status is a crucial step that should not be overlooked during any medical consultation. Providing smoking cessation recommendations primarily requires identifying tobacco users. Therefore, every patient encounter should be utilized as an opportunity for intervention.

Ethics

Ethics Committee Approval: For this study, approval was obtained from the Karadeniz Technical University Faculty of Medicine Scientific Research Ethics Committee on July 8, 2024, under protocol number 2024/139.

Informed Consent: Written informed consent was obtained from all participants.

Footnotes

Authorship Contributions

Concept: Ö.F.Ö., T.S., Design: Ö.F.Ö., T.S., Data Collection or Processing: Ö.F.Ö., R.B.K., Z.U., Analysis or Interpretation: Ö.F.Ö., R.B.K., T.S., Literature Search: Ö.F.Ö., R.B.K., Z.U., Writing: Ö.F.Ö., R.B.K., Z.U., T.S.

Conflict of Interest: No conflict of interest was declared by the authors.

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