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## Smoking patterns and cessation counseling practices among physicians in Turkey

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### Abstract

By this study we aimed to determine the frequency of smoking of physicians, whether they evaluate their patients in terms of smoking, and their traits of 5A step method use in an attempt to provide consultancy service to their patients. The research is a descriptive study. The size of the minimum sample was determined to be 251. The survey constituted of sections which examined demographic features and the implementations of the physicians on smoking cessation and 5A practices. Twenty one percent of the physicians stated to smoke every day, 8% of them stated to smoke occasionally. Considering the familiarity with 5A practices for those cases willing to quit smoking, 20.1% of the physicians stated to be familiar, and 79.9% of them stated not to be familiar. When the 5A practices according to the specialists of the physicians are considered, while 'pulmonology' physicians have scored significantly the highest average point. The vast majority of physicians don't know the implication 5A and don't apply the implications.

**Keywords:** Physicians, patient, cigarette, 5A applications, cigarette counseling

### Introduction

According to the WHO (World Health Organization) data, cigarette consumption, ranking forth among the risks that threaten human health, also ranks second among the causes of death. One out of every ten deaths is caused by smoking [1,2]. According to the World Health Organization (WHO) report, 10 million people died in 20th century due to tobacco epidemic, and if immediate measures are not taken, there will be more than 8 million deaths each year by the year 2030, and 80% of these deaths are estimated to occur in developing countries [3]. Cigarette smoking also leads to 71% of the deaths due to lung cancer, 42% of the deaths due to chronic respiratory system diseases, and approximately 10% of the deaths due to cardiovascular system diseases [4]. It has become mandatory to provide active prevention and active treatment services in view of such a major health problem. In this regard, physicians are anticipated to protect people who have never smoked; especially children and juveniles, to treat those who smoke, and to prevent those who quit smoking from taking up smoking [5,6].

Although there are reliable evidences about the harms of tobacco use, a small portion of the smokers are actually aware of the health risks of smoking. People in general know that smoking is harmful but they are rarely aware of the actual harm of this addiction [7]. The smoking statuses of the cases that consult to health institutions should be interrogated no matter which reason they may have come for [8]. That "asking and learning the smoking habits" of the individuals and that physicians "giving recommendations" about cessation lead to rise in the rates of smoking cessation [9]. The role of the physicians in smoking cessation ranks number two following the individual himself [10]. It has been determined that approximately 70% of people who smoke refer to a physician for any reason, but physicians guide and make suggestions to approximately only 15% of them about the harms of smoking [11]. The physicians, as they have a significant place in public health protection, should take patient's smoking history on each contact and should make suggestions about smoking cessation. According to patient assessment recommended by the National Cancer Institute about smoking, smoking should be inquired, cessation should be recommended, cessation should be aided and monitoring studies should be conducted [12]. By this study we aimed to determine the frequency of smoking of those physicians who serve in city center of Malatya, whether they evaluate their patients in terms of smoking, and whether they encourage the patients about cessation and their traits of 5A step method use in an attempt to provide consultancy service to their patients.

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## Material and Method

### Setting

The research, which was conducted in 2015 covering the period of January - April, is a descriptive study. Nine hundred and five physicians who served in the province of Malatya; Turgut Ozal Medical Center Hospital, Public Hospital and Private Hospitals, comprised the target population of the study. The formula  $N \cdot t \cdot p \cdot q / d^2(N-1) + t \cdot p \cdot q$  applied in case the number of individuals in the target group is known for the selection of the sample. The size of the minimum sample was determined to be 251. The target population was stratified with regard to the institutions where the physicians worked, the academic title of the physicians and the status of being a practitioner, and the stratified sampling method was utilized. Eighty-seven percent of the sample was reached. A survey was filled by the physicians who had not been on leave of absence and by those who agreed to answer the questionnaire. A written permission was received from the Inonu University Medical Faculty Ethics Committee for the study to be performed.

### Subjects and data collection

The survey constituted of sections, which has been developed upon literature knowledge, which examined demographic features and the implementations of the physicians on smoking cessation, and 5A practices. The 5A practices are implementations for cigarette cessation of which WHO recommends. The recommended 5As for those cases which are willing to quit smoking are: Asking every patient whether he/she has smoked within the last month (ask), advising to quit smoking (advise), assessing about willingness of smoking cessation (assess), assisting in the consideration of smoking cessation and attempt of cessation (assist), arranging a monitoring program to prevent relapse (arrange) [13,14]. The answers to the questions were summed up in 7-Point Likert Scale as: "never (1)", "seldom (2)", "at times (3)", "fifty-fifty (4)", "usually (5)", "mostly (6)", "always (7)". Higher scores indicate that those physicians implemented the 5A practices on their patients more often.

### Analysis

The data collection tools about the research were computerized after conducted as a survey, by checking each data set and excluding the incomplete answers from the study. In the statistical analyses, with the Kolmogorov-Smirnov test (K-S); the Student's t and One Way Anova tests have been utilized for the data which correlate with the normal distribution, and Mann-Whitney U and Kruskal Wallis tests have been utilized for those data which do not correlate with the normal distribution, and in all assessments,  $p < 0.05$  has been accepted to be significant.

### Results

Out of the physicians that have participated in the research, 24.8% are female, 75.2% are male. The average age of the participants are  $41.23 \pm 6.56$  and 94% of the individuals are married.

Out of the physicians that have participated in the research, 27.8% serve at private sectors, 30% serve at public hospitals, 20.5% serve at universities, 21.4% serve at family health centers. Fifty nine point one percent of the physicians work in internal medicine, 40.9% of them works in medical surgery. Out of the participant physicians; 55.6% are specialist doctors, 24.4% are general practitioners, 9.4% are professors, 6.8% are associate professors, 3.8% are assistant professors. Considering the working years of

the physicians, 51.3% of them worked between 11 to 20 years at highest rate. Twenty one percent of the physicians stated to smoke every day, 8% of them stated to smoke occasionally, 71% of them stated that they did not smoke. Considering the familiarity with 5A practices which are recommended by WHO for those cases willing to quit smoking, 20.1% of the physicians stated to be familiar, and 79.9% of them stated not to be familiar (Table 1).

Table 1. Socio-demographic characteristics of the participants

Socio-demographic characteristics	Number (n)	%
<b>Gender</b>		
Women	58	24.8
Men	176	75.2
<b>Age</b>		
25-34	29	12.4
35-44	140	59.8
45-54	54	23.1
≥ 55	11	4.7
<b>Marital Status</b>		
Married	220	94.0
Single	13	5.6
Other	1	0.4
<b>The Occupy Institution</b>		
Private sector	65	27.8
Public hospital	71	30.3
Universty	48	20.5
Family practicion center	50	21.4
<b>Department</b>		
Internal medicine	136	59.1
Surgery medicine	94	40.9
<b>Degree</b>		
Professor(	22	9.4
Associate Professor	16	6.8
Assistant Professor	9	3.8
Specialist	130	55.6
General practitioner	57	24.4
<b>Years worked</b>		
≤10	58	24.8
11-20	120	51.3
21-30	48	20.5
≥31	8	3.4
<b>Smoking status</b>		
Smokers	47	21
Sometimes smoker	18	8
Non-smoker	159	71
<b>The knowing status of 5A</b>		
Yes	45	20.1
No	179	79.9

For the first practice of 5A practices; 'Ask', 17.9% of the physicians have given the answer 'mostly I do', for 'Advice', 33.2% of them have given the answer 'I always do', for 'Assess', 29.6% of them have given the answer 'I seldom do', for 'Arrange', 49.8% of them have given the answer 'I never do' (Table 2).

**Table 2.** The rate of 5A smoking cessation practices of physicians

	n	1 %	1 %	1 %	1 %	1 %	1 %	1 %	1 %
Ask	223	10.3	16.1	16.6	9.9	16.1	17.9	13.0	4.11
Advise	223	6.7	5.8	9.9	7.2	23.3	13.9	33.2	5.09
Assess	223	13.0	29.6	19.7	11.7	10.3	8.5	7.2	3.31
Assist	223	18.4	22.4	13.0	9.9	14.8	12.6	9.0	3.54
Arrange	223	49.8	23.3	8.5	4.5	7.2	4.5	2.2	2.18

1 indicates never, 7 indicates always

When the 5A practices according to the specialists of the physicians are considered, while ‘pulmonology’ physicians have scored significantly the highest average point with the question of ‘How often did you ask or assess about the smoking status of your

patients whom you take anamnesis or whom you examine within the last month?’, ‘orthopedics’ physicians have scored the lowest point (Table 3).

**Table 3.** Physicians’ 5A smoking cessation practices by medical department

Medical departments	n	Ask	Advise	Assess	Assist	Arrange
General internal medicine	33	5.12	5.88	3.61	4.36	2.45
Neurology	11	3.73	4.55	2.18	2.91	1.18
Ophthalmology	10	2.50	3.20 <sup>b</sup>	2.20	1.80	1.40
Orthopaedics	9	2.33 <sup>b</sup>	3.67	2.67	2.22	1.33
Brain surgery	10	3.00	3.80	2.40	2.80	1.10
Psychiatry	3	4.33	4.33	4.67	4.67	3.67
Pulmonary medicine	6	6.83 <sup>a</sup>	6.83	6.50 <sup>a</sup>	6.50 <sup>a</sup>	5.00 <sup>a</sup>
General surgery	12	3.45	5.00	2.27	2.91	1.36
Infectious diseases	3	4.00	5.33	4.67	5.00	2.00
Cardiovascular surgery	4	5.50	5.25	3.25	4.00	3.75
Dermatology	9	2.63	4.00	2.00	2.13	1.13
Anesthesiology	5	3.80	3.20	2.00	1.20	1.00 <sup>b</sup>
Urology	10	4.30	5.70	4.50	3.90	1.60
Otolaryngology	8	5.00	6.50	3.38	4.00	2.38
Respiratory surgery	2	6.50	7.00 <sup>a</sup>	6.00	5.50	3.50
Physical medicine and rehabilitation	5	3.60	5.00	3.40	3.40	2.00
Cardiology	4	6.00	6.50	4.25	5.00	2.00
Pediatric	12	3.00	4.50	3.00	2.25	2.25
Obstetrics and gynecology	9	4.22	5.00	3.22	3.56	2.56
Emergency	10	4.30	4.90	3.10	3.40	2.10
Family practitioner center	51	4.14	5.37	3.59	3.80	2.69
Plastic surgery	1	4.00	5.00	2.00 <sup>b</sup>	1.00 <sup>b</sup>	1.00 <sup>b</sup>
<b>Total</b>	<b>227</b>	<b>223</b>	<b>223</b>	<b>223</b>	<b>223</b>	<b>223</b>

When the Smoking Cessation Practice Total Scores according to Socio-demographical characteristics of the physicians are considered, there has been no significant variation determined in the points scored considering the gender, marital status and smoking status.

When the age groups are considered, the average scores of the physicians who are between the ages of 45-54 have been determined to be significantly higher. When the institutions at which the physicians work are considered, the average scores of those physicians who work at university hospital have been determined to be significantly higher. The average score of Internal Medicine has been determined to be significantly higher than that of Surgery. The average score of the physicians whose term of employment is

of 21-30 years has been determined to be significantly higher than that of the other groups (Table 4).

When the scores received by the physicians according to their titles are considered, those who have the title of Assistant Professor Doctor have been determined to score significantly higher (Table 5).

As far as Gender and Smoking Status are concerned, the non-smoker male physicians have been determined to score significantly higher with the questions ‘How often did you recommend smoking cessation?’ and ‘Did you assist in the smoking cessation?’ (such as; naming days, recommending medications, referring to smoking cessation outpatient clinics) from the Smoking Cessation Practices (Table6).

**Table 4.** The comparison of the scores of smoking cessation according to socio-demographical characteristics of physicians

	n	Min	Medyan	Max	p
<b>Gender</b>					
Women	54	5	16.50	35	0.49*
Men	169	5	18.00	35	
<b>Age</b>					
25-34	28	5	15.00	30	0.037**
35-44	136	5	17.00	35	
45-54	48	5	21.00	35	
≥ 55	11	5	13.00	30	
<b>Marital Status</b>					
Married	210	5	17.50	35	0.191*
Single	12	7	14.00	33	
<b>The Occupy Institution</b>					
Private sector	61	5	15.00	35	0.001**
Public hospital	70	5	16.50	32	
Universty	42	5	22.50	35	
Family practicion center	50	6	20.00	35	
<b>Department</b>					
Internal medicine	127	5	19.00	35	0.009*
Surgical medicine	93	5	16.00	33	
<b>Years worked</b>					
≤10	57	5	15.00	35	0.009*
11-20	115	5	18.00	35	
21-30	43	5	21.00	35	
≥31	8	5	12.00	27	
<b>Smoking status</b>					
Smokers	47	5	15.00	31	0.063**
Sometimes smoker	18	8	16.50	27	
Non-smoker	158	5	19.00	35	

\*Mann-Whitney U \*\*Kruskal Wallis

**Table 5.** The comparison of smoking cessation practice score means according to socio-demographical characteristics of the physicians

Characteristics	n	5A Practices X±SS	P
<b>Degree</b>			
Professor	19	21.89 ± 7.13	
Associate Professor	13	21.46 ± 9.28	
Assistant Professor	9	22.44 ± 8.94	
Specialist <sup>a</sup>	125	16.52 ± 7.34	
General practitioner	57	19.36 ± 6.66	
<b>The knowing status of 5A</b>			
Yes	45	21.60 ± 8.41	
No	178	17.38 ± 7.13	

a the group that makes the difference \* independent t test \*\*One Way Anova

**Table 6.** Smoking cessation practice of physicians according to gender and smoking status

Smoking Cessation Practice	Women			Men		
	Smokers <sup>a</sup>	Non-smoker	p	Smokers <sup>a</sup>	Non-smoker	P
Ask	4.36	4.00	0.50	3.69	4.31	0.06
Advise	4.86	5.03	0.77	4.63	5.34	0.02
Assess	2.50	3.33	0.13	3.14	3.47	0.26
Assist	3.29	3.45	0.78	3.04	3.81	0.02
Arrange	1.71	2.33	0.24	1.92	2.31	0.11

<sup>a</sup> Regular smokers + sometimes smokers. chi-square test

When the statements about smoking cessation practices of the physicians who smoke and those who do not are considered, the physicians who do not smoke scored significantly higher with

the statements of ‘ In my opinion, to make people quit smoking is difficult’ and ‘In my opinion to give consultation for smoking cessation ends in failure’ (Table 7).

**Table 7.** Smoking cessation attitudes of physicians according to smoking status

	Smoker <sup>a</sup> AO±SS	Non-smoker AO±SS	P
If patients cannot quit on their own, there is little that I can do	2.80±1.00	2.56±1.08	0.12
It is difficult for me to get people to quit	2.34±0.97	2.67±1.14	0.03
Counseling for cessation is not an efficient use of my time	3.23±1.15	3.53±1.08	0.06
Cessation counseling improves my relationship with patients	2.58±0.96	2.26±0.88	0.01
Helping with smoking cessation makes me feel useful to patients	2.29±0.87	2.16±0.89	0.32
I find counseling patients about smoking cessation to be frustrating	3.51±0.92	3.80±0.91	0.03

<sup>a</sup> Regular smokers + sometimes smokers. independent t test

## Discussion

I Physicians by their public image, have a substantial role in the community in both prevention of starting smoking and also encouraging smoking cessation [15, 16]. Out of the physicians who participated in the study, 29% smoke (including those who smoke occasionally) and 71% of them have stated that they do not smoke. Still, in our study 25.9% of female physicians and 30% of male physicians have stated that they smoke. In a study which Gunes et al. conducted in 2005 over a similar population, 37.5% of the physicians stated that they smoked [17]. Kosku et al. (2003) reported the smoking rate of the female physicians to be 29% and of the male physicians to be 41% [18]. Temel et al. (2004) reported in their study established the smoking rate to be 57% in males, and 43% in females [19]. In the study Aslan et al. conducted in 2008 similar to our study, was found to be 26% [11]. Demir et al. (2013) in the research which they conducted, stated that 30.5% of the participant physicians smoked [20]. In the study which we conducted, the smoking rate of the physicians have been found to be parallel with but relatively lower than the other research results. Since the other studies were conducted earlier as of date, it gave rise to the thought of that as time elapsed, the studies concerning the battle against smoking in Turkey have had an effect on physicians. This has aroused the idea that the physicians who take an active role in the battle against smoking are to succeed primarily on their own behalf and then for their patients. Also, according to Global Adult Tobacco Research report 2012, the tobacco use prevalence in Turkey between the years 2008 and 2012 fell from 31.2% to 27.1%. The decrease occurred in both men (from 47.9% to 41.5%) and in women (from 15.2% to 13.1%). This alteration means a reduction in smoking frequency of 13.4% (13.5% in men, 13.7% in women) [21]. Our study is also such as to verify these data.

The 5A (Ask, Advise, Assess, Assist, Arrange) strategy is recommended to be implemented on the approach to the patients who are willing to be successful on smoking cessation treatment [22,23]. As familiarity with 5A practices of the participant physicians are considered, it is established that with a low rate, 20.1% of them are familiar, and 79.9% of them are not.

Out of those participant physicians in the study, 47% have stated to question their patients routinely about whether they smoke or not (always, mostly, usually), as for 42.6% have stated to question at times (half and half, occasionally, sometimes). Ten point three per cent of the physicians on the other hand, have never questioned

about smoking statuses of their patients. As to in the study of Gunes et al. this rate was similarly found to be 10.9% [17]. In another study that was conducted, it was determined that 61.5% of the physicians regularly questioned about the smoking status of their patients, 25.7% of them questioned occasionally, and 12.8% of them did not question at all [24]. The most important step in 5A strategy is the step “Ask”. That every physician asking questions about smoking to every patient increases the smoking cessation rate twice [14]. We expect the ‘Ask’ strategy to be practiced with a higher rate.

In our study, 70.4% of the physicians have stated to give recommendations about smoking cessation to their patients regularly (always, mostly, usually), 22.9% of them have stated to give recommendations occasionally (fifty-fifty, at times, sometimes), 6.7% of the physicians, on the other hand, have stated not to give any recommendations to their patients. In a study that was conducted in 2013, 71.5% of the physicians stated to recommend their patients to quit smoking [20]. As to the study of Cirit et al., 50.5% of the physicians stated to recommend their patients to quit smoking ‘regularly’, 17.3% of the physicians stated to do so ‘occasionally’ [24]. This data of our study is similar to that of Demir et al. and higher than that of Cirit et al. When the years in which the studies were conducted are considered, it might be claimed that, in time, the emphasis to be placed on the subject and the sensibility of the physicians have increased.

Out of the participant physicians in the study, 36.4% have stated to assist (Assist) in smoking cessation regularly (always, mostly, usually), 45.3% have stated to assist occasionally (fifty-fifty, at times, sometimes), as for 18.4% of the physicians have stated to not to provide any support to their patients. In the study of Gunes et al. 13.1% of the physicians have stated to support the patients regularly, 33.1% of them have stated to support occasionally, 53.8% of them on the other hand, have stated to not to have any guidance on supporting [17]. While in our study the support and guidance services are given to eight out of every ten patients, in the study of Gunes et al. support is given to five out of every ten patients. This variation between the studies have shown that, in the course of time, naming days to quit smoking, recommending medications, referring to a smoking cessation outpatient clinic have been successful in the battle against smoking.

In the study, considering the scores received by the physicians from the 5A practices according to their specialists, while pulmonology



and thoracic surgery specialists scored the highest; plastic surgery, orthopedics and ophthalmology specialists scored the lowest [17].

In our study, there has been no significant difference found between the smoking cessation practice scores of the physicians and their genders and marital statuses. Also in similar studies that have been conducted, there has been no significant difference found between the gender of the physicians and the smoking cessation practices [17,20].

In our study, the scores on smoking cessation practices of the physicians who work in the university hospital have been found to be significantly higher than of those who work in the other institutions. When the conclusions of the scanned meta-analyses of 42 studies which were published between 1972-2012 by Stead et al. [25] about the effectiveness of giving recommendations on smoking cessation are considered, the institution to give the most frequent recommendations has been observed as the first step health institutions.

It is considered to stem from the application rates of more patients with high risk due to smoking applying to university hospitals in different branches, and the smoking cessation services being provided by two different units (Public Health Dpt., and Family Doctors Dpt.) of the university hospitals in the city where the study has been planned.

The reason why academicians work in the university hospitals might be that academicians are more sensible with their patients in respect of smoking.

In our study, the physicians who work in internal medicine have been found to implement the smoking cessation practices more than those of surgical medicine. In a study that was conducted, the physicians who worked in internal medicine again were found to recommend their patients to quit smoking and to assess the extent of their eagerness with significantly higher rate than those of surgical medical sciences [17]. This could be interpreted as the internal medicine physicians placing more emphasis on preventive health services.

While there is no significant difference in terms of 5A practices between smoker and non-smoker female participant physicians, there has been found a significant difference between male physicians. Non-smoker male physicians have been found to recommend and to support their patients to quit smoking with a higher rate. Also in the study of Gunes, non-smoker male physicians have been observed to implement the 5A practices on their patients with a higher rate [17].

While in our study, there is no significant difference between implementing the 5A practices and the smoking status of the physicians, in the study of Uysal et al. the physicians who do not smoke have been stated to implement the 5A practices on their patients with a higher rate [26]. In another study that has been conducted, there has been no significant difference found about the attitudes between those physicians who smoke and those who do not smoke [27].

When considering the smoking cessation practices of the physicians with regard to their smoking statuses, those participant physicians

who do not smoke consider it to be difficult to quit smoking, as far as they have observed, for those patients who consulted to them and it to end in failure to give consultation. Those physicians who smoke on the other hand, have stated that giving consultation enhance their communication with their patients.

## Conclusion

The most successful countries in decreasing the smoking rate and decreasing its consumption are those where the physicians are most active in the battle against smoking and where the smoking rate among the physicians is at the lowest degree [28]. Three out of every ten physicians who participated in our study were established to smoke. Smoking of physicians have a negative effect on the communities which a battle against tobacco, and decrease the faith of the individuals who want to quit smoking. In this sense, considering the smoking status of the physicians to be one of the most effective factors upon the community, it is advisable that primarily physicians and physician candidates to be trained and in-service-training to be given systematically about smoking cessation practices throughout their medical training.

In our study, it has been determined that four out of every five physicians is not familiar with the 5A practices of smoking cessation and 10% of the physicians have never inquired the smoking status. By adding a section that is obligatory to be filled to the anamnesis form of the physicians, the smoking statuses of the patients could be inquired and thus support services could be provided to those who are willing to quit smoking or at least awareness could be created in regard to the issue.

## Recommendations

The battle against smoking, which is the leading cause of chronic diseases and related disabilities and deaths, should be undertaken not only by smoking cessation outpatient clinics which are introduced specifically for this purpose but also by all health institutions. Also by providing training about this topic for the physicians who work on the first step that is significant for preventive medicine, 5A practices should be attempted to be increased on the first step.

### Competing interests

*The authors declare that they have no competing interest*

### Financial Disclosure

*The financial support for this study was provided by the investigators themselves.*

### Ethical approval

*For this study, ethical approvals from the ethics committee of the university with legal permits from the authorities in Turkey have been taken.*

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