

Original Article

Anti-Tobacco Counseling Practice and Physicians' Attitudes towards Tobacco Smoking

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Abstract

Background: Physicians play an important role in tobacco smoking (TS) cessation in patients. The formation of patients' attitudes and the implementation of prevention measures are usually influenced and affected by physicians smoking behavior and their knowledge and beliefs about the harmful effects of tobacco. The study aims to analyze physicians' attitudes towards TS and counseling patients on tobacco prevention.

Methods: A quantitative, descriptive, cross-sectional study was conducted from October to December 2020. Out of 337 physicians, 275 were randomly selected in five large tertiary hospitals (Tbilisi, Georgia). Each participant was emailed a pre-designed electronic questionnaire, which by 242 participants completed.

Results: The prevalence rate of tobacco usage was 39.4% among males and 13.63% among females. The average rate of smokers in the country considerably exceeds the number of doctor smokers. The highest rate of smoking was revealed in surgeons (n=12; 24%). The age when smokers start TS is much lower in men (up to 16 years old) in comparison to women (from 16-20 years old). According to the majority of respondents (84%; n=204), doctors should not smoke tobacco due to their profession, as they are in charge of giving a good example to their patients. According to 74% of respondents, the advice of a doctor leading to the prevention of TS usage motivates patients to cease smoking. Attitudes of doctors towards patients-smokers are stipulated by their smoking status. Smoker doctors reveal a more loyal attitude to smoker patients compared to the doctors who do not smoke. Doctors-smokers mainly consider that tobacco prevention counseling does not result in a reduction of patients-smokers.

Conclusions: Physicians have a high prevalence rate of TS among physicians, although they have enough information about the role of tobacco in the development of various diseases. To form anti-smoking efforts within the medical community, encouraging doctors to decrease tobacco dependence is required. It is advisable to increase physicians' education of physicians about the various methods of smoking cessation. Incorporating tobacco cessation education into medical university curricula will significantly assist physicians in routinely providing tobacco cessation assistance to patients. [*Ethiop. J. Health Dev.* 2024; 38(3): 00-00]

Keywords: tobacco, doctor, tobacco use, tobacco cessation, smoking.

Introduction

Physicians are exceptionally involved in preventing diseases, and they are always in charge of a healthy lifestyle [1, 2, 3]. With this regard, the roles of physicians are especially significant in giving advice against tobacco and providing information on tobacco as a causative factor for various diseases [4].

For doctors, who are the representatives of a healthy lifestyle, the anti-tobacco position is an obligation, as doctors' smoking behavior means silent consent for patients to use tobacco. Furthermore, the anti-smoking position of patients is commonly influenced by doctors' urges and advice, as the role of doctors in the prevention of tobacco use is extremely important [5, 6]. The willingness of doctors to ensure tobacco smoking (TS) prevention counseling is generally influenced by several factors, such as education obtained at universities, training, personal skills, and self-confidence to have effective counseling [7, 8, 9]. It is easy to understand the fact that non-smoker doctors have much more stimuli to hold anti-tobacco counseling compared to smoker ones [10].

According to research [11], an average of 22% of physicians were past smokers, and 7% were current smokers. In most countries, at least 78% of physicians who smoke have attempted to quit. Unexpectedly and encouragingly, nicotine replacement therapy was

reported by 1/3 of physicians as a method of smoking cessation/reduction. On average, 25% of physicians report never having participated in training about smoking cessation. In all countries, a large majority of physicians – ranging from 71% to 94% - agree that helping patients quit smoking is a priority. Physicians report that they are very likely to discuss smoking periodically with patients. Conversations with patients who smoke largely focus on the health benefits of cutting down or quitting and the health risks of continuing.

Doctors are aware of their professional responsibilities and have analyzed their roles in establishing a healthy lifestyle [12, 13, 14, 15]. Consequently, they are more involved in anti-tobacco preventive events [16]. Knowledge obtained during the learning process at universities and throughout various trainings has a positive impact on doctors' attitudes, as this kind of education improves counseling skills with patients and other forms of behavioral changes [17, 18].

The conducted studies proved that counseling held by doctors represents an effective way to reduce the number of tobacco users [19, 20]. The studies also revealed that allocating some time (at least 1 or 2 minutes) for anti-tobacco prevention counseling by a family doctor increases the rate of smoking cessation by 8% in patients [21]. Therefore, in terms of tobacco

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use control and management, doctors play remarkably positive roles in their patients' lives [22]. However, in some countries, the number of smoker doctors is quite high [23, 24, 25]. It is clear that a doctor who uses tobacco himself is not a good example and adviser for patients [26, 27, 28]. The studies have also proven that quitting TS in patients is generally encouraged by doctors' advice and by decreasing the number of smokers.

In Georgia, the study related to TS in Georgian doctors and the survey about doctors' involvement in tobacco prevention events with patients has not been conducted yet. The study aims to examine tobacco use behavior in doctors and their points of view about the efficiency of anti-tobacco prevention counseling that would be held with patients.

Methods

Study design

A quantitative, descriptive, cross-sectional study has been conducted. Data was collected in Tbilisi, Georgia, from October to December 2020.

Study Setting

The study was conducted in selected hospitals in Tbilisi, the capital of Georgia. According to the report of the National Statistical Office of Georgia from 2023, which will be updated until 2022, there are 263 hospitals with 24000 doctors in Georgia. In Tbilisi, the study population included doctors from five large hospitals. The Hospitals were selected based on their size, location, number of beds, and ownership. Of the hospitals studied, 3 were responsible for general care, and 2 were specialized. In half of the hospitals that participated in the study (45%) the number of beds was between 100 and 200; the majority of hospitals (72%) had more than 200 employees..

Source/ study population

Based on the research objective, doctors who were in the five hospitals in Tbilisi were selected as the target group. Only those doctors who gave their consent were included in the study.

Sample size and sampling

To ensure a representative sample, a non-probabilistic random sampling technique was used for the study. Databases of five selected hospitals were used to select doctors. Out of 337 doctors, 242 qualified, licensed, full-time physicians were randomly selected, who have been practicing for at least 2 years, and at least 5% of their patients smoke. From each hospital, a total of 67 physicians were chosen using systematic sampling, with the hospital register serving as the sampling frame. The sample consisted of physicians in the following specialties: cardiologist, family physician, surgeon, anesthesiologist, and obstetrics/gynecology.

Data Collection and Management

The research tool utilized was a pre-structured questionnaire prepared based on the questioners which was about tobacco prevalence in doctors and was developed by the Medical Association of Japan [29].

Considering local culture and environment, certain changes were made during the preparation of the questionnaire. Before taking up the research, the questionnaire was pre-piloted. Experts in public health confirmed content and form validity. After piloting, minor adjustments were made to the questionnaire.

The study employed a questionnaire to collect information on socio-demographic characteristics (sex, age, medical specialty), current smoking status, smoking status in the past, number of cigarettes smoked per day, duration of TS (by years), kind of nicotine content is given prevalence, age of beginning TS, reason for starting TS, attempt to cease smoking during last year. Physicians' attitudes related to tobacco abuse were assessed using 6 items. Three-point Likert Scale was used, defined by scoring: Agree (1), Disagree (2), and Undecided (3). The six-question items measuring attitudes related to tobacco abuse include: (1) "TS is harmful to health?" (2) "A doctor should not smoke tobacco and act like this gives a good example to the patient?" (3) "Refusal on TS is high in patients when a doctor has smoking cessation counseling?" (4) "A doctor should always advise patients-smokers on smoking cessation?" (5) "A doctor-smoker gives less advice for TS cessation?" (6) "Doctors should have special training on TS cessation?" (Table 4). Physicians' attitudes to making stricter TS public policy were assessed using 6 items. Two-point Likert Scale was used, defined by scoring: Agree (1), Disagree (2).

The survey was conducted through the online platform (Google Forms). A predesigned electronic questionnaire was sent to each participant via email, which 242 participants completed. The survey was open for 3 months with 2 reminders of participation. The collected data was carefully assessed and thoroughly checked. Furthermore, the data was cleaned by sorting and conducting a frequency distribution analysis for each variable.

Data analysis

Excel, coded extracted the responses, and then analyzed using SPSS for Windows version 23. The statistical analyses were descriptive. Categorical data were presented as a frequency and percentage. Frequency tables generated statistics. Univariate logistic regression was carried out to identify any significant associations in these revised, now binary variables by the independent variables, taking note of within-group differences. A p-value of 0.05 was considered significant.

Ethical considerations

Ethical clearance was obtained from the Institutional Ethics Committee of the Caucasus University (17.2020_06_09_CU). To contribute to the research, all participants were asked to complete a written consent form.. In addition, data were collected anonymously and used only for the study. Finally, data confidentiality was assured throughout the whole study.

Results

The majority of doctors who took part in the research are female (n=176; 72.7%). Mostly, they are doctors at the age of 30-39 (n=74; 30.6%). The study involved doctors with various specialties the majority of them were family doctors (n=116; 47.9%) and surgeons

(n=38; 16%). 20.7% (n=50) of doctors who have been questioned during the research are tobacco smokers, and 21.5% (n=52) are former smokers. The study result shows that TS is mostly spread in men (n=26; 39.4%) compared to women (n=24; 13.63%). (Table 1).

Table 1: Social-demographic characters of doctors, Tbilisi, Georgia, 2020

Category	Subcategory	Number (n)	%
Age (in years)	20–29	30	12.4%
	30–39	74	30.6%
	40-49	46	19%
	50-59	48	19.8%
	60-69	32	13.2%
	> 70	12	5%
Sex	female	176	72.7%
	Male	66	27.3%
Medical specialty	Cardiologist	34	14%
	Family physician	116	47.9%
	Surgeon	38	16%
	Anesthesiologist	29	12%
	Obstetrics/Gynecology	25	10%
TS status	Non-smoker	140	57.9%
	Former smoker	52	21.5%
	Smoker	50	20.7%

The relation between tobacco use and gender has been revealed namely, it is significantly connected with the male sex ($P < 0.05$). In terms of age, the highest rate of TS is in doctors aged 30-39 (n=100; 41%; $p < 0.003$).

Among respondents, 21.5% (n=52) ceased smoking, from which 14.8% are women and 39.4%-men ($p = 0.00$). (Table 2).

Table 2: Tobacco use according to sex and age, Tbilisi, Georgia, 2020

	Never smoker	been smoking	Gave up Smoker	Total	P value
Sex					
Female	126 (71.6%)	26 (14.8%)	24 (13.6%)	176 (72%)	$P < 0.00$
Male	14 (21.2%)	26 (39.4%)	26 (39.4%)	66 (27%)	$P < 0.00$
Total	140 (57.9%)	52 (21.5%)	50 (20.7%)	242 (100%)	$P < 0.00$
Age					
20-29	6 (4%)	4 (3%)	8 (16%)	18 (7%)	$P < 0.003$
30-39	52 (37%)	24 (17%)	24 (48%)	100 (41%)	$P < 0.003$
40-49	42 (30%)	15 (11%)	8 (16%)	65 (27%)	$P < 0.003$
50-59	28 (20%)	7 (5%)	6 (12%)	41 (17%)	$P < 0.003$
60-69	12 (9%)	2 (1%)	4 (8%)	18 (7%)	$P < 0.003$
Total	140 (100%)	52 (100%)	50 (100%)	242 (100)	$P < 0.003$

As the study showed, the majority of smokers (n=28; 56%) consume 11 or more tracks of cigarettes per day ($p = 0.026$). 44% (n=22) of smokers have been regular users of tobacco for 10-15 years. The duration of tobacco dependence in women is longer than in men. Among 30% (n=15) of smokers who have been using tobacco for more than 15 years, the number of women (n=8; 33%) exceeds the number of men (n=7; 27%). This fact leads us to believe that prolonged dependence on smoking is mostly revealed in women than in men

($p = 0.2$). This consideration is enhanced by the fact that among people who quit TS, the number of men (n=26; 39.4%) exceeds the number of women (n=26; 14.8%). More than half of the smokers (52%) prefer the type of tobacco which contains medium nicotine. The majority of men (n=16; 62%) smoke tobacco with medium nicotine. Among smokers, who use high-nicotine tobacco, number of women (n=6; 25%) exceeds the number of men (n=4; 15%) ($p = 0.36$). Age when smokers start, TS is much lower in men (up to 16 years

old) compared to women (since 16-20 years old). However, the vast majority of respondents (n=23; 46%) started TS at the age of 16-20 (p=0.002 relation between age and beginning of TS is reliable). Mostly, starting TS is stimulated by two factors, which smokers equally name: interest in tobacco (n=22; 44%) and social environment: smoker friends (n=22; 44%). (Table 3). 60% (n=30) of doctors-smokers tried to stop TS last year (p=0.000), from which women accounted

for 53% (n=16) and men 47% (n=14). Among doctors-smokers, the highest rate of smoking was revealed in surgeons (n=17; 34%) and anesthesiologists (n=10; 20%). The majority of doctors-smokers work in hospitals (n=40; 80%), and 20% (n=10) in ambulatories (P<0.05). Among hospital doctors, 33.3% (N=40) were smokers, and among doctors in ambulatories, 8.2% (n=10) were smokers. (Table 3).

Table 3: Frequency, duration, and prevalence of nicotine content for TS according to gender, Tbilisi, 2020

	Men	Women	Total	P value
Number of cigarettes smoked per day				
1-5				
6-10	0	2 (8%)	2 (4%)	
11-20	2 (8%)	7 (29%)	9 (18%)	
More than 21	16 (62%)	13 (54%)	28 (56%)	
Total	8 (31%)	3 (13%)	11 (22%)	
	26 (100%)	24 (100%)	50 (100%)	P<0.026
Duration of TS				
1-5	0	0	0	
6-10	6 (23%)	7 (29%)	13 (26%)	
10-15	13 (50%)	9 (38%)	22 (44%)	
More than 15	7 (27%)	8 (33%)	15 (30%)	
Total	26 (100%)	24 (100%)	50 (100%)	P < 0.2
What kind of nicotine content is given prevalence?				
Low	6 (23%)	8 (33%)	14 (28%)	
Medium	16 (62%)	10 (42%)	26 (52%)	
High	4 (15%)	6 (25%)	10 (20%)	
Total	26 (100%)	24 (100%)	50 (100%)	P < 0.36
Age of beginning TS				
Before 16	13 (50%)	6 (23%)	19 (38%)	
16 – 20	10 (38%)	13 (50%)	23 (46%)	
After 21	3 (12%)	5 (19%)	8 (16%)	
Total	26 (100%)	24 (100%)	50 (100%)	p=0.002
Reason for starting TS				
My friends smoked	14 (54%)	8 (33%)	22 (44%)	
My friends smoked/to relieve stress	1 (4%)	1 (4%)	2 (4%)	
To relieve stress	1 (4%)	3 (13%)	4 (8%)	
For interest	10 (38%)	12 (50%)	22 (44%)	
Total	26 (100%)	24 (100%)	50 (100%)	p=0.002
Attempt to cease smoking during last year				
Yes	14 (54%)	16 (67%)	30 (60%)	
No	12 (46%)	8 (33%)	20 (40%)	
Total	26 (100%)	24 (100%)	50 (100%)	
Division of tobacco smokers according to specialties				
Surgeon	14 (54%)	3 (13%)	17 (34%)	
Family doctor	0 (0%)	10 (42%)	10 (20%)	
Anesthesiologists	7 (27%)	3 (13%)	10 (20%)	
Cardiologist	2 (8%)	5 (21%)	7 (14%)	
Obstetrics/Gynecology	3 (12%)	3 (13%)	6 (12%)	
total	26 (100%)	24 (100%)	50 (100%)	p=0.000
Division of tobacco smokers according to organizational levels				
ambulatory	0 (0%)	10 (42%)	10 (20%)	
hospital	26 (100%)	14 (58%)	40 (80%)	
total	26 (100%)	24 (100%)	50 (100%)	p<0.05

An absolute majority of respondents (100%) believe that TS is harmful to health. 84% (n=204) of respondents believe that doctors should not smoke because of their profession, as they have a duty to set a

good example to their patients. 74% of respondents believe that a doctor's advice on tobacco prevention encourages patients to stop smoking (Table 4).

Table 4: Doctors' attitudes related to tobacco abuse, Tbilisi, Georgia, 2020

	Never smoker	been Ceases smoking	Smoker	Total	P value
TS is harmful to health					
Agree					
Disagree	140 (100%)	52 (100%)	50 (100%)	242 (100%)	
Undecided	0 (0%)	0 (0%)	0 (0%)	0 (0%)	P<0.00
	0 (0%)	0 (0%)	0 (0%)	0 (0%)	P<0.00
Total	140 (100%)	52 (100%)	50 (100%)	242 (100%)	P<0.00
A doctor should not smoke tobacco, and acting like this gives a good example to the patient.					
Agree	137 (98%)	47 (90%)	20 (40%)	204 (84%)	
Disagree	3 (2%)	5 (10%)	10 (20%)	18 (7%)	
Undecided	0 (0%)	0 (0%)	20 (40%)	20 (8%)	
Total	140 (100%)	52 (100%)	50 (100%)	242(100%)	
Refusal of TS is high in patients when a doctor has smoking cessation counseling					
Agree	127 (91%)	41 (79%)	10 (20%)	178 (74%)	
Disagree	12 (9%)	5 (10%)	11 (22%)	28 (12%)	
Undecided	1 (1%)	6 (12%)	29 (58%)	36 (15%)	
Total	140 (100%)	52 (100%)	50 (100%)	242 (100%)	
A doctor should always advise patients-smokers on smoking cessation					
agree	140 (100%)	51 (99%)	49 (99%)	240 (99%)	
not agree	0	0	0	0 (0%)	
difficult to answer	0	1 (1%)	1 (1%)	2 (1%)	
Total	140 (100%)	52 (100%)	50 (100%)	242 (100%)	
A doctor-smoker gives less advice for TS cessation					
Agree	66 (47%)	3 (6%)	7 (14%)	76 (31%)	
Disagree	43 (31%)	34 (65%)	41 (82%)	118 (49%)	
Undecided	31 (22%)	15 (29%)	2 (4%)	48 (20%)	
Total	140 (100%)	52 (100%)	50 (100%)	242 (100%)	
Doctors should have special training on TS cessation					
	89 (64%)	32 (62%)	43 (86%)	164 (68%)	
	15 (11%)	8 (15%)	3 (6%)	26 (11%)	

Agree	36 (26%)	12 (23%)	4 (8%)	52 (21%)
Disagree	140 (100%)	52 (100%)	50 (100%)	242 (100%)
Undecided				
Total				

Most doctor-smokers are among the opponents who do not promote TS public policy to become even stricter. According to the opinion of 92% (n=46) of smokers, TS should be maximally restricted in public places.

The vast majority of smokers and non-smokers (100%) agree with the idea that trading tobacco should be forbidden for children aged up to 18 and adults. (Table 5).

Table 5: Doctors' attitudes to make stricter TS public policy, Tbilisi, Georgia, 2020

	Agree smoker	Non-smoker	Disagree smoker	Non-smoker
TS is to be maximally restricted in public places	46 (92%)	188 (97%)	4 (8%)	2 (1%)
Preventive health signs must be seen on cigarettes with large print	40 (80%)	166 (86%)	6 (12%)	2 (1%)
The sale of tobacco is to be forbidden to children aged to up 18 and adults	50 (100%)	192 (100%)	0	0
Tobacco advertisements must be prohibited	44 (88%)	160 (83%)	2 (4%)	12 (6%)
Medical facilities should be declared as tobacco-free zones	38 (76%)	168 (87%)	6 (12%)	10 (5.2%)
The price of tobacco products should be dramatically increased	22 (44%)	121 (63%)	26 (52%)	37 (19%)

Discussion

The study showed that doctor plays an important role in the reduction of smoking in patients. Doctors' attitudes to TS define to what extent they carry out tobacco prevention counseling with patients and how often they give advice related to TS cessation. The large number of smokers in doctors and their attitudes to TS had an influence on patients, in particular anti-tobacco counseling and provision of advice for them. Other studies have shown similar results [30].

The results show that doctors lack information on the harmful effects of tobacco, as well as they seem to feel a lack of confidence that tobacco prevention counseling really can have a significant impact on patients' behavior. According to the research, 11% of doctors do not agree with the idea that patients are more likely to quit smoking based on their doctor's advice.

The study proves that a reduction in tobacco prevention counseling (from 11% to 6%) and a decrease in the advice given by doctors about TS cessation (from 38.2% to 19.8%) diminishes the rate of attempts of smoking cessation by smokers from 25.3% to 23.1% in the population, which make us think about the special role of doctors in reduction of TS.

A high rate of TS has been revealed in doctors. According to the study, almost one-fifth of the doctors who took part in the research are smokers. However, the rate of smokers in doctors is relatively lower (20.7%) than the rate of smokers in the whole population (30.7%). The study determined that there are differences between smokers according to gender categories as well as age and specialties. The rate of women doctors-smokers (13.6%) exceeds the rate of

smokers in the whole population (7.8%), but this rate is lower in men doctors-smokers (39.4%) compared to men smokers of the whole population (55.5%).

Prolonged dependence on smoking is revealed more in women than in men. In terms of frequency of TS, number of cigarettes smoked per day (>11, p=0.026) by doctors is equal to the average value (11 and more) of the country's population [31]. The vast majority of respondents (44%) started smoking at the age of 16-20 (p=0.00). The same value is seen in the whole population of the country. This age coincides with school graduation and student years when stress factors are more revealed (p=0.002 relation between age and beginning of TS is reliable). Other studies have shown similar results [32, 33].

In terms of TS cessation, while comparing the rate of doctors to the whole population, a significant difference has been detected. In particular, 23.1% of smokers tried quitting smoking in the country, while 60% of doctors-smokers (p=0.000) tried smoking cessation, according to our study. The difference is obvious according to gender. Presumably, it is related to the fact that doctors are more aware of the harmful effects of tobacco; daily practice with patients is an obvious example of them pushing themselves to stop TS.

Among doctors, smoking is more frequent in urologists, oncologists, and neurologists. Among family doctors, tobacco dependence is the lowest (20%) compared to hospital doctors (80%), which can be related to the specificity of their activities and the high level of stress in hospital doctors compared to ambulatory doctors. The high rate of smoking among

doctors is conditioned by the following factors: night shifts/on-call visits, excess working hours, less possibility of holidays, and excess of patients with heavy diseases in hospital compared to ambulatory. The same results have been achieved in other studies [34].

Attitudes of doctors towards patients-smokers are stipulated by their smoking status. Studies show that smoker-doctor reveals a more loyal attitude to smoker patients compared to the doctors who do not smoke [35]. In addition, doctors-smokers mainly consider that tobacco prevention counseling does not result in a reduction of patients-smokers. It is noteworthy that a family doctor is less interested in patients' smoking habits. They barely apply prevention measures and do not support the propaganda of a healthy lifestyle to diminish smokers. Propaganda of a healthy lifestyle must be done mostly within the primary healthcare system, as well as the provision of tobacco prevention counseling to eliminate the impact of one of the harmful and important risk factors on patients' health [36].

There are many factors to explain why physicians do not regularly counsel patients who use tobacco. These factors include limited time for consultation with patients, patient receptivity to counseling on lifestyle issues, and lack of trust in counseling on tobacco cessation [37]. Studies show that a patient's health status partially determines whether or not they receive smoking cessation counseling. Patients with asthma, cardiovascular disease, and chronic obstructive pulmonary disease with evidence of tobacco use were more likely to receive smoking cessation counseling than non-smoker patients [38].

Research has shown that although physicians recognize their role in tobacco control, they do not engage sufficiently with patients to explore all aspects of motivations fully. This shows the lack of skills in modern techniques of training and motivational counseling of doctors, which does not mean only providing information to patients. Research has also shown that physicians have relatively less time to engage in more extended dialogues with patients.

Conclusions

Doctors play an important role in putting an end to TS in patients. There is a high prevalence rate of TS among physicians, although they have enough information about the role of tobacco in the development of various diseases. To form anti-smoking efforts within the medical community, encouraging doctors to decrease tobacco dependence is required. It is advisable to increase the education of physicians about the various methods of smoking cessation recommended by the guidelines and then make recommendations to patients. Incorporating tobacco cessation education into medical university curricula will significantly assist physicians in routinely providing tobacco cessation assistance to patients.

Competing interests

The authors declare that they have no competing interests.

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