

Smoking Prevalence Among Military Healthcare Personnel in Istanbul

Istanbul'da Askeri Sağlık Personeli Arasında Sigara İçme Sıklığı

Dilaver Taş, Oğuzhan Okutan, Hatice Kaya, Zafer Kartaloğlu, Erkan Bozkanat

Gülhane Military Medical Academy, Haydarpaşa Training Hospital, Department of Pulmonary Medicine, İstanbul, Turkey

ABSTRACT

Introduction: The smoking rate of the general population in Turkey is considerably high. Healthcare personnel are expected to be the primary elements in the campaign against smoking. More data are needed on smoking rates and smoking behavior among military healthcare personnel.

Material and Method: We aimed to establish smoking prevalence in a military training hospital in Istanbul and the impact of working in the healthcare sector on smokers. For this purpose, a 16-item questionnaire was applied to healthcare personnel.

Results: Among the participants, 283 were males and 254 were females. Of the male participants, 47.7% were still smoking, while 17.7% had stopped. In females, these rates were 39.8% and 13.0%, respectively. Overall, 43.9% of the healthcare professionals were currently smokers and 15.5% were ex-smokers. In this study, the smoking rate of males was found to be higher than that of females ($p=0.011$). There was a significant difference between the smoking rate and education levels ($p=0.011$). The smoking rate was found to decrease with increased levels of education ($r=-0.145$, $p=0.001$).

Conclusion: Data acquired in this study reveal that almost half (43.9%) of military healthcare professionals are smokers. Smoking prevalence of military healthcare professionals is similar to the general population in Turkey. Current anti-smoking campaigns are not effective in promoting smoking cessation.

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Key words: Cigarette, healthcare personnel, smoking prevalence

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ÖZET

Giriş: Türk toplumunda sigara içme oranı oldukça yüksektir. Sigara karşıtı kampanyalarda, sağlık personelinin birincil rol alması beklenir. Askeri sağlık personeli arasında sigara içme davranışı ve sigara içme oranı ile ilgili bazı verilere gereksinim vardır.

Gereç ve Yöntem: İstanbul'da bir askeri eğitim hastanesinde sigara içme sıklığını ve sigara içme üzerine sağlık sektöründe çalışmanın etkisini ortaya koymayı amaçladık. Bu nedenle sağlık personeline 16 sorudan oluşan bir anket uygulandı.

Bulgular: Katılımcıların 283'ü erkek, 254'ü kadındı. Erkek katılımcıların %47.7'si halen sigara içiyorken, %17.7'si bırakmıştı. Kadınlarda ise bu oranlar, sırasıyla, %39.8 ve %13.0'dı. Tüm sağlık profesyonellerinin %43.9'u halen sigara içiciydi ve %15.5'i bırakmıştı. Bu çalışmada, erkekler arasında sigara içme oranı, kadınlardan daha yüksek bulundu ($p=0.011$). Sigara içme oranı ve eğitim düzeyi arasında anlamlı bir fark vardı ($p=0.011$). Sigara içme oranının, eğitim düzeyi arttıkça azaldığı görüldü ($r=-0.145$, $p=0.001$).

Sonuç: Bu çalışmada elde edilen veriler, askeri sağlık profesyonellerinin nerdeyse yarısının (%43.9) sigara içici olduğunu ortaya koymuştur. Türkiye'de askeri sağlık profesyonellerinin sigara içme sıklığı toplumun geneliyle benzeşmektedir. Mevcut sigara karşıtı kampanyalar sigara bırakmayı sağlamada etkili değildir.

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INTRODUCTION

After manufacture of cigarettes increased in the 19th century, the smoking habit increased rapidly worldwide. Therefore, smoking related diseases also increased. When developed countries realized the hazardous effects of smoking they started anti-smoking campaigns. Smoking habits and smoking-related diseases decreased

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Address for Correspondence / Yazışma Adresi: Dilaver Taş, Gülhane Askeri Tıp Akademisi, Haydarpaşa Eğitim Hastanesi, Göğüs Hastalıkları ve Tüberküloz, İstanbul, Turkey Phone: +90 216 325 72 50 Fax: +90 216 325 72 57 E-mail: dilavertas@gmail.com

in developed countries. Although everyone knows of the hazardous effects of smoking in the 21st century, smoking is still a public health problem in developing countries [1].

Healthcare personnel are expected to be the primary elements in the fight against smoking. The physicians should act as a role model by not smoking [2].

The aims of this study are; to determine the prevalence of smoking among military healthcare workers in a military training hospital in Istanbul, to establish the relationships between smoking, sex, and education and finally, to learn the impact of working in the healthcare sector on rate of smoking.

MATERIAL and METHOD

We aimed to investigate the smoking habits of healthcare workers, their opinions about smoking and the effect of being healthcare workers on smoking. We performed this study in GMMMA (Gulhane Military Medical Academy) Haydarpasa Training Hospital in 2005. We carried out a 16-item questionnaire to hospital personnel (physicians, nurses, laboratory technicians and nurses' aides). Personnel working in clinics and laboratories were asked to fill the questionnaires voluntarily. Questionnaire forms were distributed and collected on different days for each division. The questionnaire form used was given in appendix 1.

Definitions about smoking habits were as follows:

Smoker: People who have smoked at least 100 cigarettes in their lifetime, both still smoking and quit smoking <12 months ago.

Ex-smoker: People who quit smoking ≥12 months ago.

Nonsmoker: People who have never smoked or smoked less than 100 cigarettes in their lifetime [3].

The distribution, collecting and download to the computer of data were completed in February of 2006. Five hundred and thirty seven individuals were accepted for participation in the study. This comprised 91% of the target population.

SPSS computer software package, version 13.0 was used for statistical analysis. Descriptive statistics, chi-squared testing and Pearson correlation coefficient were used for the nominal data. Results with a p value <0.05 were considered as significant.

RESULTS

Among the participants, 283 (52.7%) were males and 254 (47.3%) were females. Three hundred and thirty eight subjects (62.9%) were married. Vocational college or university graduates comprised 70.4% of the participants. The mean age ± SD (range) was 32.5±6.5 (20-60) and participants were employed in the healthcare sector for a mean [± SD (range)] of 9.3±5.9 (1-33) years.

While 47.7% of the male subjects were still smoking, 17.7% had quit. These rates in females were 39.8% and 13.0%, respectively. Overall, 43.9% currently smoked and 15.5% were former smokers (Table 1). In this study, the smoking rate of males was found to be higher than that of females (p=0.011).

The percentage of smokers among physicians was 36.8%. There was no statistically significant difference among smoker specialists (p=0.35). However, surgeons had the highest percentage of smoking (Table 2).

Of the subjects, 70.4% were either vocational college or university graduates. In this group, the percentages of smokers were 41.2% and 36.8%, respectively, while the percentage of smokers among high school and primary school graduates were 51.5% and 60.7%, respectively (Table 1). There was a significant difference among smoking rate and level of education (p=0.011). The smoking rate decreased with an increase in the level of education (r=-0.145, p=0.001).

Table 1. The distribution of smoking with respect to sex and education

	Current Smoker	Nonsmoker	Former Smoker	P Value
General %* (n=537)	43.9	40.6	15.5	
Sex				
Male% (n=283)	47.7	34.6	17.7	0.011
Female% (n=254)	39.8	47.2	13.0	
Level of Education				
Primary% (n=56)	60.7	21.4	17.9	
High School% (n=103)	51.5	37.9	10.7	0.011
Vocational College% (n=226)	41.2	44.2	14.6	
University% (n=152)	36.8	44.1	19.1	

*Percentages are belong to line of verse

Table 2. The distribution of smoking with respect to the specialty of the physicians

	Current Smoker (n=56)	Nonsmoker (n=66)	Former Smoker (n=30)	P Value
General % (n=152)	36.8	43.5	19.7	
Medical % (n=62)	29.0	51.6	19.3	0.35
Surgical % (n=74)	44.5	36.4	18.9	
Laboratory % (n=16)	31.2	43.7	25.0	

*Percentages are belong to line of verse

Cigarette was most frequently tried for the first time between 16-20 years of age (50.2%), while regular smoking began at 21-25 years of age (40.8%). Among the reasons for starting to smoke, curiosity ranked first with 32.2%. When the factors underlying unsuccessful attempts at giving up smoking were investigated, uneasiness was the most common factor in 17.3%. Although 70.7% of our subjects had tried to give up smoking at some time, 85.7% of them did not seek help. Only 10 subjects sought help from a medical establishment.

The mean period of time of employment in the healthcare sector was 9.3±5.9 (range: 1-33) years. When we looked into the impact of working in the healthcare sector on smoking habits, we found that being a healthcare professional did not affect the smoking habit in over half of our subjects (50.8%). Instead, working in the healthcare sector resulted in an increase in the number of cigarettes smoked per day in 36.4% of our cases. This was more evident in females (48.9%) (Table 3).

Of participants, 65.7% who smoked and those who had stopped thought that harm caused by smoking is underemphasized in the media. In the meantime, response to anti-smoking campaigns did not exceed 34.6%.

The majority of the respondents (92.9%) believed smoking placed a burden on the economy and increased health expenditure (93.3%).

DISCUSSION

Nicotine addiction increases the risk of cancer, respiratory diseases, cardiovascular diseases and many other health problems. Pre and postnatal environmental exposure to smoking leads to health problems, especially respiratory diseases, in children [2,4]. Many studies have documented the relations between cigarette smoking, development of diseases and increased mortality. Doll and Peto also showed the increased mortality caused by smoking and decreased mortality by smoking cessation according to cessation age [5]. The other important fact

is that smoking related diseases comprise a major proportion of healthcare expenses.

In Turkey, just as in many other developing countries, the prevalence of smoking is high, not only in the general population, but among healthcare professionals as well. We have assessed the state of our hospital staff. 65.7% of smoker participants claimed that the media did not cover the hazardous effects of cigarette smoking sufficiently and 93.3% of them believed cigarette smoking increased healthcare expenses. 65.4% of participants were not influenced by anti-smoking campaigns. Successful outcomes have been achieved in anti-smoking campaigns in developed countries and smoking rates have been decreased. The fight against smoking and assistance to smokers willing to stop are not sufficient in Turkey.

Healthcare professionals, especially physicians and nurses, are not only health educators but also models for the general public. Therefore, they should not smoke. If they smoke they negate the effectiveness of anti-smoking campaigns. Healthcare professionals who smoke are unwilling to encourage patients to give up smoking [6]. Physicians who smoke tend to see cigarettes as "a social habit" rather than "a risk factor for diseases".

In the present study, we found the prevalence of smoking to be 43.9% among healthcare professionals working at GMMA Haydarpaşa Training Hospital. This rate is similar to the smoking prevalence of the community in Turkey. A study held in 1988 revealed that the overall smoking prevalence of the general population was 43.6% [7]. Mutlu et al found that the proportion of males reporting cigarette use was 51% and of females was 35% in Turkey [8]. Likewise, smoking rates among civil healthcare personnel are remarkably high [9-11].

In developed countries, the frequency of smokers among physicians is low and is decreasing gradually. In the USA, the frequency of smoking decreased from 18.8% to 3.3% among clinicians and from 31.7% to

Table 3. The impact of working in healthcare sector on smoking rate

	Increased%*#	Decreased %*	Unchanged %*
Sex			
Female	48.9	5.9	45.2
Male	27.4	17.2	54.8
Specialty			
Medical	35.8	15.7	48.5
Surgical	37.8	10.5	51.7
Laboratuary	34.1	11.4	54.5
Education			
Primary	15.9	18.2	65.9
High School	25.0	23.4	51.6
Vocational College	48.8	7.9	43.3
University	37.2	9.3	53.5
Total	36.4	12.8	50.8

*Number of cigarettes smoked per day. #Percentages are belong to line of verse

Appendix 1

SMOKING INFORMATION QUESTIONNAIRE

Age:

Gender:

Marital Status:

Number of your children:

Graduation degree:

Title:

Division:

How many years do you work as healthcare personnel:

1. Do you smoke cigarettes?

(WHO defines that people who smoked at least 100 cigarettes in lifetime both still smoking and quit smoking <12 months ago are smoker.)

a) Yes b) No c) I quit smoking (How long haven't you been smoking for?)

If you answered 'b' to this question, please jump to question 12.

If you answered 'c' to this question, please jump to question 7.

2. How many cigarettes do you smoke per day?

a) 5 or less b) 6-10 c) 11-15 d) 16-20 e) over 20

3. Do you wish you could stop smoking?

a) No

b) Yes, but I don't feel ready to quit..

d) Yes

e) I haven't been smoking for less than 12 months.

f) I haven't been smoking for more than 12 months.

4. Have you tried to stop smoking?

a) Yes (How many times?.....) b) No

5. What factors influenced you to continue smoking?

6. If you have tried to stop smoking, who supported you in quitting?

a) Anybody supported b) My family and friends supported c) Psychologist supported me d) I took medication e) I appealed to smoking cessation outpatient clinic.

7. How old were you when you began to smoke cigarettes regularly?

a) Age 10 or less b) 11-15 c) 16-20 d) 21-25 e) Over age 25

8. What were the main reasons that you started smoking?

9. How many cigarettes did you smoke per day? (If you quit smoking)

a) 5 or less b) 6-10 c) 11-15 d) 16-20 e) over 20

10. Did your smoking habit change over working at the health sector?

a) I started smoking over working at the health sector or increased b) Decreased c) Not changed

11. Did antismoking campaign influence you?

a) Yes, I smoke any or less cigarettes b) Yes, I smoke more cigarettes c) No

12. Do you think that the media put on the agenda news about harm of smoking sufficiently?

a) Yes b) No

13. Do you think that consumption of cigarettes is a burden on national economy?

a) Yes b) No

14. Do you think that sale of foreign cigarette brands is a burden on national economy?

a) Yes b) No

15. Do you think that consumption of cigarettes increases health expenditure?

a) Yes b) No

16. Do you think that smoking is harmful for nonsmokers as well as smokers?

a) Yes b) No

18.3% among nurses between 1974-1991 [6]. A study conducted in Japan calculated the prevalence of smoking among physicians as 26% (27.8% in males and 5.2% in females) and this was lower than the prevalence in the general population [12]. In contrast, 43.9% of healthca-

re workers in the present study were smokers and this rate was similar to the general population rate. Likewise, Sotiropoulos et al. found that the prevalence of smoking among Greek physicians was exceedingly high (%38.6) and similar to that of the general population [13].

Smoking rate among male clinicians in Japan is 27.1% [14]. Smoking rate among US and British male physicians are 3.3-10% and 18%, respectively [15-17]. It is evident that the smoking rate in Turkey among physicians is considerably higher than in developed countries.

In developed countries, the rates of smokers among males and females are similar and the frequency of smokers decreases with education and economic status [2]. On the other hand, smoking is generally more prevalent among males in Turkey. The percentages of smokers among males and females were 47.7% and 39.8%, respectively. In this study, smoking rates of males were significantly higher than females ($p=0.011$). There was an inverse relation between the level of education and the smoking rate ($r=-0.145$, $p=0.001$).

A study of Israeli physicians revealed that the overall smoking rate was 15.8%. However, there was a significant variability among the specialties, with 40% of radiologists, 25% of surgeons and anesthesiologists, and 8% of internists and pediatricians being addicted [18]. A study reported that 34% of physicians in the Netherlands smoked and that there were marked differences in the prevalence among specialist physicians, being highest in psychiatrists and lowest in pediatricians [19]. We found the highest prevalence in surgeons, but it was not significant statistically ($p=0.35$).

Cigarette was first tried between the ages of 16-20 years and smoking became regular between 21-25 years of age. This suggests that gaining financial independence or the factor of being distant from one's family had an influence on regular smoking.

We found that 70.2% of healthcare professionals tried to give up smoking. The most common reason for failure in achieving this goal was uneasiness (17.3%), a symptom of abstinence. In summary, curiosity was the most common factor in starting smoking and uneasiness was the most common factor underlying the failure to stop.

Working in the healthcare sector leads to learning about the hazardous effects of smoking and also enables the person to see the results. Therefore, one would expect that this should affect the way healthcare professionals who smoke perceive smoking, and have positive effects regarding to cessation of smoking. The duration of employment in the healthcare sector among our participants was about 10 years. When we examined the impact of working in the healthcare sector on smoking habits, we found that working in the healthcare sector resulted in an increase in the number of cigarettes consumed, especially in females (48.9%).

At this stage, the relative contribution of smoking to the development of various diseases and identification of the mechanisms involved in these processes should be explored, as well as how to deal with smoking among healthcare professionals and the general population alike. Healthcare professionals should first be trained to participate in the fight against smoking more enthusiastically and effectively. In this way, there will be a decrease in smoking related diseases and consequent healthcare expenses and a giant step towards joining developed countries will be taken.

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