

# Frequency of Cigarette Smoking and Factors That Affect Smoking Among Personnel Employed in a Training Hospital

## Eğitim Hastanesinde Çalışan Personelin Sigara Kullanım Sıklığı ve Sigara Kullanımını Etkileyen Faktörler

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### ABSTRACT

**Objective:** This study was initiated in order to determine the smoking frequency and the attitude to smoking of employees at the Ankara Training and Research Hospital.

**Material and Method:** From a total of 1.912 personnel, 1.628 (85.1%) participated in the study. A face-to-face survey consisting of 17 questions was conducted. The survey participants were 59.6% women and 40.4% men.

**Results:** The data showed that 34.4% were still smoking, 12.8% had been smoking but had quit and 52.8% had never smoked. Among men the rate of smoking was 42.1% and among women it was 29.1%. It was observed that smoking was less prevalent among physicians (26.1%) and more among attendants (60.5%). The commencement age for smoking was between 16-20 years of age in 63%. When the reasons for smoking were investigated, the most frequent answer was pretension and curiosity in 52.1%. Out of the total number of smokers, 59.1% were thinking of quitting in the future. Among the methods used, giving up smoking abruptly was the most frequent method given in 62%.

**Conclusion:** Health personnel, and particularly physicians, are in a position of being mentors in society in preventing the health hazards of smoking and in assisting giving up smoking. Thus, it is these people who should not smoke, stop if they are smoking and make society aware of this fact.

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**Key words:** Cigarette smoking, health personnel, questionnaires

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### ÖZET

**Amaç:** Bu çalışma; Ankara Eğitim ve Araştırma Hastanesi çalışanlarında sigara içme prevalansını ve sigaraya karşı tutumlarını saptamak amacıyla planlandı.

**Gereç ve Yöntem:** Çalışmaya; hastanede çalışan toplam 1912 personelden ulaşılabilen ve çalışmayı kabul eden 1628 (%85.1) kişi katıldı. Bu kişilere yüz yüze görüşme yöntemi ile 17 sorudan oluşan bir anket uygulandı. Ankete katılanların %59.6'sı kadın ve %40.4'ü erkekti.

**Bulgular:** Olguların; %34.4'ünün halen sigara içtiği, %12.8'nin içmiş bırakmış olduğu, %52.8'inin ise hiç sigara içmediği tespit edildi. Erkeklerde sigara içim oranı %42.1, kadınlarda ise %29.1 olarak bulundu. Sigaranın en az hekimlerce içildiği (%26.1), en fazla ise hizmetlilerde içildiği (%60.5) görüldü. Sigaraya başlama yaşının %63.0 ile 16-20 yaş arası grup olduğu saptandı. Sigara içme nedenlerine bakıldığında ise %52.1 ile özentisi ve merak en sık sebeplerdi. Sigara içenlerin %59.1'inin gelecekte sigarayı bırakmayı düşündükleri belirlendi. Sigarayı bırakma yöntemleri arasında, %62 ile birden bire bırakmak en sık rastlanan yöntem olarak saptandı.

**Sonuç:** Başta hekimler olmak üzere sağlık çalışanları, toplumda sigaranın sağlığa zararlarının önlenmesinde ve sigarayı bırakma konusunda yol gösterici konumdadırlar. Dolayısıyla, öncelikle sağlık çalışanlarının sigara içmemeleri, içiyorlarsa bırakmaları ve bu konuda toplumu bilinçlendirmeleri gerekmektedir.

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**Anahtar sözcükler:** Sigara içimi, sağlık personeli, anket

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### INTRODUCTION

Cigarette smoking is the leading preventable cause of death in our country and in the world [1]. Despite the fact that the negative effects of smoking on health are known, it is still widespread [2]. An article published by the European Cancer Institute noted that each year 3 million individuals die from cigarette related diseases [3]. Up to the year 2030, over 10 million deaths are expected each year, of which 70% will be from developing coun-

tries [4]. In another study, it was pointed out that the health expenses of cigarette smokers were 40% more than those of non-smokers for the same period [5]. Cigarette smoking is a significant health related problem in Turkey as well [6]. Our country ranks second in Europe after Greece in cigarette smoking per person [7].

This study was conducted in order to determine the attitude and behavior of hospital personnel towards ciga-

rette smoking, taking similar reference studies into account [6-9].

### MATERIAL and METHOD

Of the approximately 1.900 employees at Ankara Training and Research Hospital, 1.628 (85.1%) agreed to participate and were interviewed face-to-face. Since the Hospital Office for stopping smoking is as yet in the establishment phase, hospital personnel were surveyed in the Department of Chest Diseases or in their own departments. An "ethics committee approval" was also obtained. A form that evaluated the demographic characteristics, hospital duties and knowledge about and attitudes towards cigarette smoking of respondents was applied. This survey form was rearranged from the questions asked by the World Health Organization (WHO) and the Fagestrom dependency survey forms [8]. Those who have smoked fewer than 100 cigarettes during their lifetime and have not smoked during the last year were defined as "non-smokers" and those who had smoked in the past and have stopped in the last year were defined as "smoked but quit." The SPSS computer software package, version 12.0 was used for statistical analysis. The data were analyzed using Chi-Square test. A value of  $p < 0.05$  was considered as statistically significant.

### RESULTS

Of 1.628 individuals participating in this study, 970 were women (59.6%) and 658 were men (40.4%). Of the respondents in the 16-65 age group, the majority are between the ages of 36-45 (44.9%). With regard to professional distribution, most of the respondents consisted of physicians, 658 (40.4%), while the smallest group consisted of 30 (1.8%) pharmacists, psychologists and dentists. In this study, it was observed that 283 women (29.1%) and 277 men (42.1%) or a total of 560 individuals (34.4%) smoked cigarettes. Of the total number of personnel, 52.8% were non-smokers and 12.8% had stopped smoking. Those smoking and those quitting smoking reported having started to smoke between the age 16 and 20 (63%), being the highest group. As to the sex difference, women made up 64.2% and men 61.7%.

This conclusion once again confirms that individuals are more prone to cigarette smoking during the adolescent period. In evaluating those who smoke cigarettes and those who have stopped, we found that, among the reasons reported for commencing smoking, pretension and curiosity ranked first (52.1%) for 768 respondents, and adapting to their social circle, friends and social environment were among other factors (Table 1). It was found that 61.6% of the family members of smokers smoked as well. It was also established that the families of non-smokers and those quitting smoking were non-smokers, 83.8% and 62.5% respectively. Taking these proportions into account, it is possible to observe a meaningful correlation between smoking of a person and that of his or her family members ( $p < 0.01$ ).

Our study showed that 172 physicians smoked the least (26.1%) and 52 attendants smoked the most (60.5%) (Table 2). The group who smoked the most consumed 11-20 cigarettes per day (45.0%). A meaningful relationship was observed between the place where personnel worked and the number of cigarettes smoked per day ( $p < 0.05$ ). Of the personnel that worked in emergency services, 63% smoked between 11-20 cigarettes per day. This was followed by administrative personnel with 54.5%, surgery with 47.2% and intensive care and surgery room personnel with 45.8%. It was found that cigarette smoking was higher in divisions where stress was more intense (Table 3).

When asked about cigarette smoking in the future, "I am thinking of quitting" appeared as the most frequent response (59.1%). The main reason (47.7%) for starting to smoke again after having quit was the feeling of being deprived. Other lesser reasons reported were intense stress and psychological factors such as depression (Table 4). Of the methods applied to stop smoking, quitting abruptly was the most frequent (62.0%), followed by psychotherapy (60.6%) and acupuncture (49.5%) (Table 5). In addition, a meaningful relationship could not be seen between the personnel's occupation and the number of cigarettes smoked per day ( $p > 0.05$ ). It was found that 35.5% of personnel smoked their first cigarette 1 hour or more after they

**Table 1.** Reasons for beginning smoking

Reasons for Beginning Smoking	At degree 1		At degree 2		At degree 3	
	n	%	n	%	n	%
Pretension and curiosity	400	52.1	51	6.6	63	8.2
Enjoyment	101	13.2	74	9.6	46	6.0
Environment-friends	143	18.6	429	55.9	99	12.9
Personal-Family problems	54	7.0	117	15.2	96	12.5
Occupational or environmental stress	57	7.4	70	9.1	110	14.3
Harmonization to social sssurroundingsenvironment	13	1.7	27	3.6	354	46.1
Total	768	100.0	768	100.0	768	100.0

**Table 2.** Distribution of smoking according to occupation of the staff

	Smoking		Never smoked		Stopped smoking		Total
	n	%	n	%	n	%	n
Physician	172	26.1	412	62.6	74	11.3	658
Nurse-Midwife-Health Officer	134	37.5	177	49.6	46	12.9	357
Technician	105	35.9	143	49.0	44	15.1	292
Pharmacist, psychologist, dentist	8	26.7	14	46.6	8	26.7	30
Administrative personnel	51	47.2	46	42.6	11	10.2	108
Security	22	42.3	21	40.4	9	17.3	52
Attendant personnel	52	60.5	25	29.0	9	10.5	86
Data processing officer	16	35.5	22	48.9	7	15.6	45
Total	560		860		208		1628

**Table 3.** The relationship between the workplace of the staff and the number of daily smoked cigarettes

	Internal Diseases		Surgery		Emergency		Intensive Care		Administrative		Other	
	n	%	n	%	n	%	n	%	n	%	n	%
<10	24	25.0	20	14.1	6	22.2	19	32.2	9	27.3	34	16.8
11-20	36	37.5	67	47.2	17	63.0	27	45.8	18	54.5	87	42.9
20-30	28	29.2	42	29.6	2	7.4	11	18.6	6	18.2	57	28.0
>30	8	8.3	13	9.1	2	7.4	2	3.4	-	-	25	12.3
Total	96	100	142	100	27	100	59	100	33	100	203	100

**Table 4.** Reasons for beginning to smoke again after stopping

	At degree 1		At degree 2		At degree 3	
	n	%	n	%	n	%
Feeling of deprivation	267	47.7	49	8.7	57	10.2
Habit	101	18.0	63	11.3	52	9.3
Intense stress	104	18.6	338	60.3	69	12.3
Environment-friends	61	10.9	76	13.6	109	19.4
Psychological factors [depression, etc]	27	4.8	34	6.1	273	48.8
Total	560	100.0	560	100.0	560	100.0

**Table 5.** Methods of stopping smoking

Reasons for Beginning Smoking	At degree 1		At degree 2		At degree 3	
	n	%	n	%	n	%
To stop suddenly	129	62.0	3	1.4	21	10.1
To stop first by decreasing the number	30	14.4	23	11.0	15	7.2
Psychotherapy	23	11.1	126	60.6	30	14.4
Acupuncture	14	6.7	41	19.7	103	49.5
Nicotine gums and bands	11	5.3	13	6.3	33	15.9
Medicine	1	0.5	2	1.0	6	2.9
Total	208	100.0	208	100.0	208	100.0

woke up. Those that smoked a cigarette within 5 minutes after they woke up made up 11.3% of the total. It was observed that, excluding the first cigarette smoked in the morning, it was easy to forgo smoking at other hours (62.1%), thus this study again confirms that morning smoking has an important place among cigarette addicts. However, it was determined that cigarette smokers smoked more at other hours of the day than in the morning (64.4%). On the other hand, 68.9% of smokers would do without smoking when they are ill enough to go to bed.

## DISCUSSION

In evaluating cigarette smoking among hospital personnel, it was determined that 34.4% smoked, 52.8% did not smoke and 12.8% had stopped smoking. In studies conducted by Özkurt and Altın et al, cigarette smoking rates were found to be 48.0% and 43.6% [9,10]. According to the PIAR research, 43.6% of the adult population, over 15 years of age, smoked, of whom "62.8% were men and 24.3% women" [11]. In other studies conducted in our country it is noted that cigarette smoking among men is higher, which is related to socioeconomic conditions [12,13]. In this study, the number and proportion of cigarette smokers among male personnel is 277 (42.1%) and among women 283 (29.1%), totaling 560 (34.4%) personnel. In studies conducted in various regions of Turkey, the rate of smoking among physicians varies between 33.1% and 45.8% [6,9,13-16]. Of the 658 physicians that participated in this study, 62.6% reported they did not smoke, 26.1% smoked and 11.3% had stopped smoking. The rate of smoking among physicians was 39.7% (men) and 21.9% (women). Özşahin [16], Çan et al. [14], in studies carried out between 1993 and 1997, found that male physicians were at a statistically higher rate among cigarette smokers. In certain publications issued in the last few years, it was noted that there is no meaningful difference among the rate of smoking between male and female physicians [9,13,15]. This can be linked to the fact that female health personnel, and in particular women physicians, are more comfortable and socio-economically freer than other women in society [13].

In industrialized countries, the rate of smokers among physicians is declining day by day [17,18]. Jossereau's study [18] determined that 34% of physicians in France smoked cigarettes. In Japan this rate was 27.1% among male physicians and 6.8% among female [17]. In Spain, the rate among male physicians was found to be 38.0% and among female physicians 48% [19]. In the U.S., the rate of physicians that smoked declined from 18.8% to 3.3% between the years 1974 and 1991, while in Germany it was 28-29% [20]. Our study has established that the smoking rate of physicians in our country was similar to that in the developed world, which is noteworthy.

In other studies conducted in our country, different rates were obtained in cigarette smoking among assis-

tant health personnel. In this study, the smoking rate was found to be 37.5% among nurses, 47.2% among administrative personnel and 60.5% among attendants. In the studies undertaken by Özkurt et al. [9], the rates were 68.6%, 64.4% and 34.6%, respectively. In similar studies carried out by Altın et al. [10], the rates were found to be 42.3%, 31.7% and 62.9%, respectively. Özkurt et al. found that the smoking rate among nurses and technicians at medical faculties was 68.6%. Erbaycu et al. [15] found the rates to be 59.3% among nurses and 60.7% among technicians. While Altın et al. [10] and our study found cigarette smoking among attendants to be much higher, with lower rates for nurses and administrative personnel. It can be observed that the smoking cessation campaigns and training programs carried out in the last few years are being attended more by assistant health and administrative personnel and less by hospital attendants, which suggests that their heavier workload as well as their lack of awareness cause them to smoke more despite their worse economic situation. As was the case with the studies undertaken by Cirit [13], Göksel [21] and Gaete [22], our study has also established that pretension and curiosity were the leading reasons reported by personnel for smoking (52.1%). In their studies, Şahin [23] and Azak [24] found that the leading reason for starting to smoke was the use of cigarettes by their group of friends at 50.2% and 45.7%, respectively. In our study, it was found that, among cigarette smokers, at least one person smoked at home (61.6%). In other studies, it has been noted that there is a close relationship between cigarette smoking habits of respondents and those of a family member [6, 9, 25, 26]. Azak et al. [24] observed in their study that 80% of health personnel planned to stop smoking in the future. The rate found by Erbaycu et al. [15] was 74.1%. In our study, 59.1% of those who smoked were thinking of stopping smoking. The fact that a significant part of personnel are planning to quit smoking suggests that these people can be easily referred to cessation programs through psychological and/or medical support. Our study has established that "quitting abruptly" ranked first among the methods applied to quit smoking (62.0%). Azak et al. [24] found the rate of stopping abruptly to be 71.4%. The literature shows that "quitting abruptly" (81.5%) is the best method to stop smoking [9]. In a study conducted at Arizona State University, it has been noted that the smoking rate increased remarkably in the transition from adolescence to adulthood and that this increase lost its significance after 20 years of age [26]. In a study carried out in our country, it has been stated that the smoking habit starts at 12-13 years of age [6]. In our study, the commencement age for smoking was found to be 16-20 years of age at 63.0%. This conclusion shows that adolescents are more prone to start and continue cigarette smoking and that they need to be instructed and warned. In our study, it was detected that 26.1% of physicians, 37.5% of nurse-mid-

wife-health officers, 35.9% of technicians, and 26.7% of pharmacist, dentist and psychologists smoked. Of the total number of smokers, 59.1% were thinking of quitting in the future. Quitting smoking abruptly was found to be the most frequent method used (62%). The importance of applying five major steps to those in our hospital who want to quit smoking was underlined. Their smoking behavior was surveyed and they were advised to stop smoking. Those who seemed willing were invited to the Hospital Office, which is under construction, for giving up smoking. Despite the present smoking ban, smoking at hospitals is at a high rate. As jointly declared by international health associations, "Physicians are accountable for health and smoking", for patients consider a physician and other health workers to be a role model on health issues [27]. If a patient knows that health personnel smoke or sees them smoking, this may have adverse effects on him or her and be discouraging. In addition, if a health personnel smokes, his or her efforts to help others to stop smoking may prove to be fruitless or unappealing. It can be observed that non-smoking physicians can more easily encourage their patients to stop smoking [17,18]. Another significant point is that physicians smoking tend to see it as a social habit rather than a risk factor for diseases [15]. Despite the fact that a ban on cigarette smoking in closed areas are in place, the greatest responsibility in the struggle against cigarettes lies with physicians and other health personnel [28,29]. In many countries, including our own, efforts to cease smoking are increasing [30,31]. In particular physicians should train their patients to help them quit smoking, and associations, chambers and volunteer health workers should also provide support for physicians and other health personnel. In addition, aside from effective smoking cessation programs for health personnel, training programs that will continuously motivate health personnel in this aspect should be applied, for according to smoking rates, health personnel, excluding physicians, need to be made more aware of the subject of smoking.

### Conflict of Interest

No conflict of interest was declared by the authors.

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