Effective Factors on Unassisted Smoking Cessation

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Abstract

Objective: This study aimed to evaluate the contribution which effective factors on who self-quitting smoking.

Methods: The study had been included in over 18 years old people who not received any pharmacological treatment or psychological support. The research was performed at the 95% ±3.09 confidence interval. Age, gender, educational status, occupation, monthly income, smoking situation and effective factors on self-quitting smoking.

Results: The participants had been 50.9% (509) male and 49.5 (498) female. Median age was 35 (18-87) years old; female's median age 35 (18-83) and male's median age 36 (18-87). From İstanbul 351 (35%), Ankara 301 (30%), Konya 207 (20%), Antalya 148 (15%) were people interviewed. This study had been the most effective factor in unassisted smoking cessation one's own disease. The second factor had been getting fear of sick and third family pressure.The most people had been quit smoking due to diseases of respiratory system. The most fearful disease was cancer. Financial status was forth effective factor on quitting smoking.

Conclusion: As a result effective factors on unassisted smoking cessation had been getting fear of sick as well as own disease. Therefore, in the process of quitting smoking, and especially young people in the project will be designed to prevent smoking was thought should be given to these issues. Also important in this regard is increasing the cigarette sales price. The compliance with laws issued to prevent smoking in closed areas, in particular young people can influence their thoughts about the hazards of smoking.

Keywords: Effective factor, self-quitting smoking, unassisted smoking cessation

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INTRODUCTION

Smoking is a leading and preventable cause of illness and death. Every year, 6 million people in the world die of tobacco-related causes. More than 5 million of these death of causes directly related to smoking. If an urgent action is not taken in this regard, it is estimated that the number of annual deaths will increase to 8 million by 2030. The "Framework Convention on Tobacco Control" for this purpose was adopted by the World Health Organization at the 56th World Health Assembly on May 21, 2003 (1). The convention was ratified by Turkey, and it came into force on November 30, 2004 in Turkey. As a result of the studies conducted in this context, although the smoking rate in Turkey was 31.2% in 2008, it was 27.1% in 2012 according to the results of the "Global Adult Tobacco Survey Reports" (GATSRs) (2). For this purpose, smoking cessation clinics have been established, and the treatment of this addiction by various methods is being attempted. Therapeutic methods include motivational support treatments and pharmacotherapy. Using these treatment methods, smoking cessation rates of patients are between 24% and 45% (3-5). Within the scope of tobacco struggle, the M-POWER guidelines introduced by the World Health Organization in 2008 were adopted by its member countries (6). One of the principles in these guidelines is to enable

accessibility to drugs used in smoking cessation treatments. Drugs used for this purpose undoubtedly have effects on smoking cessation. However, another known fact is that some cigarette smokers quit smoking themselves without any medical help. It is indicated in surveys that the rates of smoking cessation without help vary from 40% to 95% (7-9). It has been reported that the proportion of those who quit smoking without help decreased after the establishment of medical and behavioral therapies used in smoking cessation treatments (8).

There seems to be a small number of extensive researches related to those who quit smoking without assistance. This study aimed to investigate the factors that were effective in self-quitting of smoking. Furthermore, it discussed whether or not to reveal subjects who succeeded in quitting smoking without assistance for motivating others as a strategy to help people quit smoking.

METHODS

People aged over 18 years who were addicted to cigarettes and other tobacco products for a period, who had left their dependence on their own without any pharmacological or psychological help, and who had been smoking for at least 1 year were interviewed within the scope of the study. Approval for the study was obtained from the Ethics Committee of the Ankara Yıldırım Beyazıt University Medical School. Participation was on a voluntary basis only. The survey was conducted in the cities of Ankara, İstanbul, Konya, and Antalya in the months of June and August in 2014. The questionnaire did not include samples to cover the entire population. The cities where the research was conducted were selected based on the cities where the study group members lived. The study was conducted with an error margin of ±3.09 at a 95% confidence level. The survey data were collected by interviewers. Surveys were conducted using computer-aided telephone interviews. The interviews were recorded. Before data collection, the interviewers were trained on the content and application of the questionnaire appertaining to the subject, and they were inspected during the data collection process. A questionnaire comprising a total of 16 questions covering the following topics was administered to the participants:

Age, sex, educational status, occupation, monthly income, the age of initiation of smoking, duration after quitting smoking, tobacco products used, frequency of use, duration between waking up and smoking the first cigarette during the period before smoking cessation [those who smoked within ≤5 minutes were considered as heavily dependent, those who smoked within 6–30 minutes were considered as moderately dependent, and those who smoked within >30 minutes were considered as slightly dependent (according to the nicotine addiction test of the European Medical Association Smoking or Health (10)], number of attempts to quit smoking, reasons that were effective for quitting smoking, the disease that was effective in quitting smoking, the disease that was most feared, the disease with which the first-degree relatives suffered that was effective in quitting smoking, whose pressure among the family members was effective, whether or not the written visual warnings on cigarette packets were effective, and whether or not smoking bans were supported in restaurants serving alcoholic and non-alcoholic beverages, bars and nightclubs, coffee shops, shopping centers, and workplaces.

Statistical Analysis

The collected information was was evaluated using the SPSS version 23 statistical program (International Business Machines Corp.; New Orchard Road, Armonk, New York 10504, USA). The Spearman correlation coefficient was used for this instead of the Pearson correlation coefficient, indicating the direction and power of the relationship between the variables. The chi-square test was used to examine the existence of the relationship in cross tables. Instead of the t-test, the Mann–Whitney U test was used as a nonparametric alternative to compare the mean of two groups because the data were not normally distributed or continuous in the analyses, and the Kruskal–Wallis test, a nonparametric alternative to ANOVA, was used for the comparison of the average of more than one group. A p value of <0.05 was considered significant.

RESULTS

A total of 1007 people aged 18 years and over participated in the survey. Half the participants (509 persons, 50.5%) were male and half (498 persons, 49.5%) were female. The median age of the participants was 35 (18–87) years. The median age of the women was 35 (18–83) years, whereas that of the men was 36 (18–87) years (Table 1). Overall, 351 (35%) people from İstanbul, 301 (30%) from Ankara, 207 (20%) from Konya, and 148 (15%) from Antalya were interviewed (Table 1).

Of the participants, 21% stated that they had received primary-school education, 7.1% had received middle-school education, 49% had received high-school education, and 22.3% had received an undergraduate/associate level education. Accordingly, most of the participants (71%) had received a high-school education or higher (Table 1).

As for the income distribution, about 90% of the participants stated that the household income was less than 3000 Turkish liras (TL). Although the rate of participants who had an income between 1000 and 1500 TL was 27.8% and that of those with an income between 1500 and 2000 TL was 15.8%, the rate of those who had an income of 2000–3000 TL was 12.1%. Those whose income level was less than 1000 TL constituted the largest group, with a rate of 34% (n=346). The proportion of those with an income over 10.000 TL was only 0.3% (n=3).

Although the average age for the initiation of smoking was 18 (±4.3) years and the median age was 17 (7–50) years, the average and median ages were both 17 (±3.9) (7–36) years among men and 18.3 (±4) years and 17 (10–50) years, respectively, among women.

There was one person who started smoking at the age of 50 years (smoked for 15 years), one person who started at the age of 45 years (smoked for 30 years), and one person who started at the age of 49 years (smoked for 3 years). Of the respondents, 74.7% stated that they started to smoke cigarettes before the age of 20 years, especially between the age of 15 and 17 years (44.5%). The rate of those who started smoking before the age of 15 years was 13.5% (Table 1). The rate of those who started smoking before the age of 18 years was 58% (n=584). When the participants were examined according to age groups, it was observed that the rate of those who started smoking after the age of 25 years was 7.4% (n=75) (Table 1). Smoking durations were 5 years or less in 27% of the participants, 6–9 years in 18%, 10–29 years in 42%, and over 30 years in 13%. When the mean duration of smoking according to the age of initiation of smoking was examined, the longest period of smoking was observed among those who started before the age of 15 years, and it was 21.8 years on an average. However, this group was the group with the highest standard deviation. With regard to the duration of smoking based on the

attempt at which smoking was quit, participants who smoked for 5 years or less quit after attempting 2.6±1.2 times on an average. When the average duration of smoking was examined according to the number of attempts to quit smoking, it was observed that those who quit at the first attempt smoked for 15.3±12.7 years on an average and those who quit at the fourth attempt smoked for 11.3±10.3 years on an average. The Spearman Order Differences Correlation showed that there was a smaller number of quitting attempts as the years of use of tobacco products increased (correlation=0.43). In other words, a negative correlation was detected between. When the number of cigarettes smoked per day was questioned during the period of quitting smoking, 37.1% of the participants stated that they smoked 16–20 cigarettes a day when they quit smoking. The patients that smoked 10 or less cigarettes during the period of smoking cessation constituted 28% (n=278). The rate of those who smoked more than 10 cigarettes a day was 72% (n=729). Smoking durations were significantly longer in those who smoked more than 10 cigarettes per day than that in those who smoked 10 or lesser cigarettes (p<0.000). When the number of cigarettes smoked was compared with the number of attempts to quit smoking, it was observed that those who smoked more than 10 cigarettes a day quit smoking after significantly more number of attempts than those who smoked lesser than 10 cigarettes per day (p<0.020) (Table 2).

The number of people using hookah besides cigarettes is 201, and 68.2% of them stated that they used hookah once a week and 21.4% stated that they used hookah twice a week.

Some participants also stated that they used hookahs more than 10 times per week, although the number of observations was small. The number of people using cigars besides cigarettes was 55, and 65.5% of them smoked cigars once a day; the number of pipe users was 38, and 55.3% of them smoked pipe once a day (Table 3).

When the level of nicotine addiction was taken into account, 57% of the cases were addicted at a low level, 23% at a moderate level, and 20% at a high level (Table 4). Of the respondents, 36.6% quit smoking at the first attempt, 19.5% at the second attempt, 18.5% at the third attempt, and 25.6% at the fourth attempt (Table 4). When their nicotine addiction level and at what attempt they quit it were evaluated

Table 1. Participant characteristics

Characteristic	Sex		
Age	**Male**	**Female**	**Total**
Mean (±SD)	38.30 (±14.16)	36.91 (±14.75)	37.61 (±15.29)
Median (min–max)	36 (18–87)	35 (18–83)	35 (18–87)
Age groups			
	n (%)	n (%)	n (%)
18–24 years	129 (25)	139 (28)	268 (27)
25–44 years	213 (42)	206 (41)	419 (42)
45–64 years	127 (25)	128 (26)	255 (25)
65+ years	40 (8)	25 (5)	65 (6)
Provinces in which research was performed			
	n (%)	n (%)	n (%)
Ankara	152 (30)	149 (30)	301 (30)
Antalya	74 (15)	74 (15)	148 (15)
İstanbul	175 (34)	176 (35)	351 (35)
Konya	108 (21)	99 (20)	207 (20)
Educational status of participants			
	n (%)	n (%)	n (%)
Illiterate	2 (0.4)	4 (0.8)	6 (1)
Primary school	96 (19)	116 (23)	212 (21)
Secondary school	40 (8)	31 (6)	71 (7)
High school	244 (48)	249 (50)	493 (49)
University	127 (25)	98 (20)	225 (22)
Age of starting to use tobacco products			
	n (%)	n (%)	n (%)
Before 15 years	97 (19)	39 (8)	136 (14)
15–17 years	225 (44)	223 (45)	448 (45)
18–24 years	153 (30)	195 (39)	348 (34)
After 25 years	34 (7)	41 (8)	75 (7)
Total	509 (100)	498 (100)	1007 (100)

Min: Minimum; max: maximum; SD: standard deviation

Table 2. Differences among the numbers of attempts to quit smoking according to the features of smoking

Smoking features	Number of participants (%)	Number of attempts (mean±SD)	p
Duration of smoking (in years)			
≤5 years	275 (27)	2.63±1.24	0.000
6–9 years	179 (18)	2.16±1.17	
10–29 years	411 (52)	2.18±1.18	
>30 years	132 (13)	2.22±1.19	
Addiction level			
Mild	576 (57)	2.18±1.20	0.000
Moderate	231 (23)	2.59±1.13	
High	200 (20)	2.46±1.27	
Number of cigarettes smoked			
≤10	278 (28)	2.18±1.19	<0.020
>10	729 (72)	2.38±1.22	

SD: standard deviation

Table 3. Tobacco products used by the participants

Tobacco product	Male (n=509) n (%)	Female (n=498) n (%)	Total (n=1007) n (%)
Cigarettes	509 (100)	498 (100)	1007 (100)
Cigarettes+Hookah	114 (22.4)	87 (17)	201 (19.9)
Cigarettes+Pipe	24 (4.7)	14 (3)	38 (3.8)
Cigarettes+Cigars	37 (7.3)	18 (4)	55 (5.5)

Table 4. The number of attempts to quit smoking according to addiction level and differences between males and females according to the addiction level

	Number of attempts to quit					
	One	Two	Three	Four	Total	
Addiction level	n (%)	n (%)	n (%)	n (%)	n (%)	p
Low	**249 (43.2)**	**102 (17.7)**	**100 (17.4)**	**125 (21.7)**	**576 (57.2)**	
Male	123 (21.4)	51 (8.9)	39 (6.8)	44 (7.6)	257 (44.6)	**<0.026**
Female	126 (21.9)	51 (8.9)	61 (10.6)	81 (14.1)	319 (55.4)	
Moderate	**53 (22.9)**	**53 (22.9)**	**60 (26.0)**	**65 (28.1)**	**231 (22.9)**	
Male	37 (16)	40 (17.3)	35 (15.2)	31 (13.4)	143 (61.9)	**<0.010**
Female	16 (6.9)	13 (5.6)	25 (10.8)	34 (14.7)	88 (38.1)	
High	**67 (33.5)**	**41 (20.5)**	**24 (12)**	**68 (34)**	**200 (19.9)**	
Male	41 (20.5)	21 (10.5)	13 (6.5)	34 (17)	109 (54.5)	**0.5**
Female	26 (13)	20 (10)	11 (5.5)	34 (17)	91 (45.5)	
Total	**369 (36.6)**	**196 (19.5)**	**184 (18.3)**	**258 (25.6)**	**1007 (100)**	

Table 5. Reasons to quit smoking

Reasons to quit smoking	Male (n=509) n (%)	Female (n=498) n (%)	Total (n=1007) n (%)
Their own diseases	118 (23)	120 (24)	238 (23.6)
Fear of disease	82 (16.1)	78 (15.6)	160 (15.9)
Pressure from family members	51 (10)	92 (18.5)	143 (14.2)
Its economic burden	65 (12.6)	40 (8)	105 (10.3)
Damage to health	49 (9.4)	56 (11.2)	105 (10.3)
Pregnancy or wife's pregnancy	7 (1.4)	35 (7)	42 (4.1)
Pressure from coworkers	45 (8.8)	23 (4.6)	68 (6.8)
Unpleasant odor	24 (4.7)	23 (4.6)	47 (4.7)
Diseases of a first degree relative and other relatives	11 (2.2)	29 (5.8)	40 (4)
Law on tobacco control	17 (3.3)	7 (1.4)	24 (2.4)
Disturb others around	13 (2.6)	11 (2.2)	24 (2.4)
Written visual warnings on cigarette packets	14 (2.8)	6 (1.2)	20 (2)
Total	**496 (97.4)**	**520 (104)**	**1016 (101)**

together, although 43% of those who were slightly dependent quit it in the first attempt, 22.9% of those who were moderately dependent and 33.5% of those who were highly dependent on nicotine quit it in the first attempt. When smoking cessation attempts were compared among those with low and high dependence, it was found that the number of those who showed low dependence and quit in the first attempt was significantly higher (p<0.000) (Table 2). Although 21.7% of those with low nicotine addiction quit in the fourth attempt, the rate of those who showed high dependence and quit in the fourth attempt was 34% (Table 4). As for the difference between men and women, although there was a significant difference between men and women with a low and moderate level of addiction in terms of the number of attempts to quit smoking (p<0.026 and p<0.010, respectively), the difference was not found to be significant in those with a high level of addiction (p<0.5) (Table 4).

When asked about the main research topic "Reasons to quit smoking," participants stated that they mostly quit smoking due to a disease, fear of disease, and pressure from family members. It was found that 23.6% (n=238) of them quit smoking due to diseases, 15.8% (n=160) due to the fear of diseases, 14.2% (n=143) due to the pressure from family members, 10.3% (n=105) due to its economic burden, and 10.3% (n=105) due to the damage to their health. It was observed that 2.4% (n=24) of the people quit smoking due to the new law and 2% (n=20) due to the written visual warnings on cigarette packs. A total of 1016 responses are observed in the table because some participants indicated more than one cause for stopping the use of tobacco products (Table 5).

The number of those who quit due to the shortness of breath (n=86; 26.9%) was the highest among the 238 patients who stopped smoking due to a disease. Of these people, 30.5% were male and 23.3% were female. Considering the cases with asthma (n=37; 17%), pulmonary disease (n=17; 8%), and cough (n=19; 5.4%), the number of those who quit smoking due to respiratory system diseases was the highest, with 159 people (56%) (Table 6).

The 160 people who quit smoking due to the "fear of illness," which was the second most frequent reason, stated that they quit due to the fear of cancer, especially lung cancer. In general, the proportion of those who feared cancer and those who stated that they quit due to the fear of lung or laryngeal cancer was as high as 75% (n=136). Some participants indicated more than one disease.

Of the 143 cases who stated that they quit smoking due to "family pressure," which was the third cause, 35.8% quit because of the pressure from their father, 29.5% because of their mother, and 14.5% because of their wife and children. Although 30% of men stated that they quit it due to the pressure from their father, this rate was 39% among women. Although the rate of men who quit smoking due to the pressure from their mothers was 15.6%, it was 36.4% among

women. It was observed that although the rate of men who were oppressed by their spouses was 20.6%, it was lesser among women (11.6%). The percentage of those who were oppressed by their children was 26% among males and 7.8% among females.

When evaluated in groups, parental pressure was found to be higher in the range of 18–29 years of age (paternal pressure 47%, maternal pressure 34%) and the pressure from spouses and children was found to be lower (8.5% and 2.8%, respectively). As the age progressed, the pressure from spouses and children took the place of the pressure from mothers and fathers within the range of 30–39 years of age and above the age of 50 years (although the pressure from spouses and children was 33.3% in the group over 50 years of age, the pressure from father was 6.7%, and the pressure from mother was 26%). It can be said that maternal pressure continues, although it decreases in older age groups.

Of the total 105 cases that quit smoking due to the economic burden, 12.5% were male and 8% were female. Among the cigarette smokers who quit smoking due to economic concerns, 22% of those who had low monthly incomes (<1000 TL) smoked more than 5 cigarettes per day and 95% of those who earned more than 3000 TL per month smoked more than 5 cigarettes per day. Among those who quit smoking due to economic concerns, there were people who earned less than 1000 TL monthly and smoked 1–2 cigarettes a day.

Of the total 40 patients who quit smoking because of the disease of first-degree relatives, 22.5% stated that their relatives had cancer, 22.5% stated lung disease, and 20% stated asthma/bronchitis. The proportion of the participants indicating that his/her father had cancer was 35.3%, and the proportion of the participants indicating that his/her spouse had cancer was 40%. The proportion of the participants stating that his/her father had a heart attack was 18%, whereas the proportion of those who said his/her mother had a heart attack was found to be 43%. The rate of those who stated that his/her father had asthma/bronchitis was 18%, whereas the rate of those who indicated that his/her mother had asthma/bronchitis was 29%. All those who mentioned throat cancer stated that they quit smoking because of the illness of their close relatives (Table 7).

The rate of those who stated that they stopped smoking because of the written visual stimuli on the cigarette packets was 2%. The rate of the respondents who stated that the written visual warnings on cigarette packets were ineffective was 64.6%. Overall, 37.7% of men and 33% of women found the written visual warnings on cigarette packets effective. The age group that proportionately found the stimuli most effective was the group with the age ranging from 30 to 39, with a rate of 40%. Two out of every three participants in the age range of 18–29 years said they found the warnings to be ineffective.

Participants were found to be more likely to support the ban in the restaurants not serving alcoholic beverages than in those serving them. It was observed that the rate of those supporting the ban in restaurants not serving alcoholic beverages was 84.4% and that of those supporting it in restaurants serving alcoholic beverages was 73.1%.

The rate of support for smoking ban at workplaces and shopping centers was found to be similar. The rate of support for smoking ban in coffeehouses was lower than that in other places (78%). The rate of support for smoking ban in taxis was found to be similar to that in other places (83.7%).

Table 6. The diseases of individuals due to which they have quitted smoking among both sexes

Disease	Male (n=118) n (%)	Female (n=120) n (%)	Total (n=238)* n (%)
Shortness of breath	44 (30.5)	32 (23.3)	86 (26.9)
Asthma	13 (11)	24 (20)	37 (17)
Heart diseases	17 (14.4)	10 (8.3)	27 (11.3)
Gastric diseases	8 (6.7)	9 (7.5)	17 (7.1)
Pulmonary diseases	10 (8.4)	7 (5.8)	17 (7.1)
Cough	5 (4.2)	8 (6.6)	19 (5.4)
Throat cancer	8 (6.7)	5 (4.1)	13 (5.4)
Diabetes mellitus	5 (4.2)	6 (5)	11 (5.4)
Cancer	3 (2.5)	6 (5)	9 (3.7)
Others (Allergy, infection, herniated disk, paralysis, surgery)	8 (6.7)	6 (5)	14 (5.8)
***Total**	**121 (102)**	**113 (94)**	**250 (105)***

*Although 238 patients stated that they stopped smoking due to their own diseases, the number increased to 250 since some told more than one reasons for quitting.

Table 7. The diseases of first-degree relatives and degree of affinity/frequency

Affected disease	Degree of affinity and frequency: Mother n (%)	Father n (%)	Spouse n (%)	Close relative n (%)	Total
Cancer	1 (14)	6 (35)	2 (40)	-	9 (22.5)
Pulmonary diseases	1 (14)	3 (18)	1 (20)	4 (36)	9 (22.5)
Asthma/bronchitis	2 (29)	3 (18)	-	3 (27)	8 (20)
Heart attack	3 (43)	3 (18)	1 (20)	-	7 (18)
Larynx cancer	-	-	-	4 (36)	4 (10)
Others (cough, pancreatic cancer)	-	2 (12)	1 (20)	-	3 (7.5)
Total	7 (100)	17 (100)	5 (100)	11 (100)	40 (100)

DISCUSSION

In this study, it has been shown that the most effective factor in quitting smoking spontaneously is the person's disease and the fear of getting sick. In addition, it has been observed that the warnings and pressure from the family members and colleagues are also effective in quitting smoking. Those who spontaneously quit smoking stated that the warnings in the Tobacco Control Law and on packages were not very effective. In the meanwhile, one of the 10 people who spontaneously quit smoking stated that the economic factor was effective.

It has been observed that the second most frequently effective factor in spontaneously quitting smoking is the fear of illness, and the third most common factor is the pressure from family members. However, when those who quit smoking due to "the diseases of a relative" and due to the understanding of the "harms to health," which are similar to each other, are both classified under showing a "fear of disease," it can be considered that the fear of disease is more effective than being affected by a disease. In both cases, it is clear that the main factor in spontaneous cessation is health concerns. In our study, it is observed that those who have low financial incomes smoke less than those who have high incomes. This suggests that increasing cigarette prices may be important for smoking cessation. It can be regarded as a finding that supporting the MPOWER principle of increasing the tobacco tax is correct (6). The average age of starting tobacco use in this study was 18 years, and this data is consistent with the results of the 2012 Global Adult Tobacco Survey Report (GATSR) (2). Although cigarette sales are prohibited for those under the age of 18 years, more than half the cigarette smokers start smoking before this age. It is observed that the duration of cigarette smoking is longer in those who start smoking at an early age than that in those who start it at later ages. Although the rate of those who started to smoke after 25 years of age was 7.4% in our study, that of those who started after the age of 30 years was as low as 2.8%. It is known that the rate of starting smoking after the age of 26 is low (11). In this study, the rate of those who started smoking at the age of 26 years or higher was 4.2%. It is considered to be important that state and non-governmental organizations develop projects together to prevent young people from starting to smoke until this age.

When the average usage periods were examined according to the number of quitting attempts; it was observed that those who quit smoking in the first attempt were found to have been smoking for a longer period of time than those who quit in the fourth attempt, and there was a negative correlation between. It seems remarkable that those who were addicted to cigarettes for a longer time can quit smoking after a fewer attempts. The occurrence of more diseases in those who have been addicted for a longer time may be effective in such cases, but one of the limitations of this research is that the duration between the reason for quitting and the time of quitting is unclear.

When examined according to the level of addiction, there was a significant difference between the slightly and moderately dependent women and men in terms of the number of attempts to quit, whereas the difference was not significant among the highly dependent ones. As the level of addiction increases, the sex-based difference disappears.

In this study, it has been observed that the diseases determined to be the most effective causes to quit smoking spontaneously are those affecting the respiratory system, such as asthma, lung disease, cough, and shortness of breath. The number of men was higher than that of women who quit smoking due to heart diseases, whereas the proportion of women who quit smoking due to asthma was higher than that of men.

The most feared diseases in our research were found to be cancer and lung disease. Especially, lung cancer and laryngeal cancer caused by cigarette smoking are the most feared diseases. Throat cancer is also one of the causes of smoking cessation due to the disease of a relative. Moreover, there are patients who quit smoking not due to the disease of the immediate family members but due to the disease of a close relative. Larynx cancer has a more traumatic effect on people. It may also deeply affect those who are not first degree relatives. This disease can be taken advantage of as an impressive element in the use of mass media among the methods of smoking cessation. There are visuals among the smoking cessation materials of the Centers for Disease Control and Prevention. There is also a significant group of smokers who were affected by cancer that their spouses and fathers had and by the heart attacks and asthma that their mothers had.

In the family pressure, which is the third most effective factor to stop using tobacco products, the pressure from spouses and children takes the place of the pressure from mother and father at older ages. It is observed that women more commonly quit smoking due to the pressure from their parents. Those who quit due to maternal pressure are twice as many among women compared with those among men. This may suggest that female sex is more susceptible to pressure in our country or is a more convincible group.

The rate of those who quit smoking spontaneously without any help is unclear in the general population. In the 2012 GATS Turkey report, the proportion of those who were ≥15 years old and attempted to quit smoking within the last 12 months without any assistance was found to be 73.4%, whereas this rate was 13.6% with pharmacotherapy and the rate of those who quit with personal interviews and advice was 8% (2). It is stated in this report that the majority of those who attempted to quit smoking without help did quit smoking, whereas the rate of smoking cessation in this method is not exactly given. In a study conducted using the data of the 2000 National Health Interview Survey, those who managed not to smoke for the last 7–24 months were compared with those who made attempts at quitting smoking for longer than 7 months and quit smoking for more than 1 day, but could not succeed completely. Of the 772 successful people, 75% said they were successful in suddenly quitting with a so-called "cold turkey," whereas 71% of 3218 people could not succeed with the same method. The number of attempts of those who succeeded in quitting using tobacco products was found to be lower and of those who did not succeed was found to be higher in this study (12). In our study, the cases indicated the number of attempts to quit smoking as four times at most. However, it should not be forgotten that it is difficult to remember that as time passes the number can change. The role of pharmacotherapy and accompanying cognitive behavioral treatment approaches in smoking cessation is important. However, it is observed that there are not many researches about those who quit it spontaneously. The drugs that are used in treatments for quitting smoking, in other words, the pharmaceutical industry may be playing a role in this. Despite the fact that the drug industry supported efforts and drug-supported attempts to quit smoking are being em-

phasized, it should be known that a considerable amount of smokers quit it by themselves. Knowing the incidence of those who quit smoking spontaneously and the factors that are effective is important not only for the developed countries but also for the developing countries because pharmacological treatments are more expensive. If the incidence of those who quit without assistance is found high, it can be remarked that efforts should be made to develop public health strategies to enable more people to quit in this way (13).

In a systematic survey entitled "What do we know about those who quit smoking without assistance in Australia," which Smith et al. (14) conducted between 2005 and 2012, it is observed that most smokers in Australia quit or attempted to quit smoking without assistance. Of the 185 studies on smoking cessation, 166 were related to pharmacotherapy, while only 19 of them are researches on quitting without assistance. According to the results obtained from the researches regarding the people who quit without assistance, although the proportion of those who quit smoking without assistance is 54%–69%, 41%–58% of the current smokers attempt to quit without assistance. In the social life-based research conducted by Zhu et al. (15), it has been shown that intensive smokers, women, and older people tend to quit smoking without any assistance. The findings in this study were compared with the research conducted by Fiore et al. (16) in 1986. Fiore's research examined the reasons of a high proportion of the people who quit smoking without assistance. This implies that the number of drugs used in smoking cessation therapies has increased and have become easily accessible; it is also emphasized that Fiore's study shows that those with a higher addiction have been included in the work, and thus, the rates may differ (15). MacKenzie and Rogers (17) criticized that the Australian smoking cessation guidelines "The Royal Australian College of General Practitioners" suggest pharmacotherapy for all such cases. It has been suggested here that the number of studies supported by the pharmaceutical industry is much higher than the other treatments and that the people who quit by themselves are ignored. In this study where it is underlined that there may be bias in studies supported by drug industry, the need for unbiased researches is emphasized.

George (18) and Chapman (19) seem to be opposing each other in the matter of quitting smoking spontaneously and cessation with nicotine replacement therapy. Although Chapman stated that the "cold turkey" (quitting abruptly) approach is the most commonly used quitting method, George argued that more evidence should be provided to support smoking cessation without assistance. Chapman noted in the study by the American Cancer Society conducted in 1986 that the rate of spontaneous smoking cessation was 90% when the smoking cessation treatments were not so common. Discussions on this are still continuing (20-22). However, the factors that increase the tendency to quit smoking spontaneously are not discussed in these studies. In our study, it has been observed that health concerns are the most effective factors for spontaneous smoking cessation. In our previous study, it was determined that the most important factor increasing the tendency to quit smoking in patients who applied to our smoking cessation clinic was the fear of deterioration of health (23). In a study conducted by Sağlam (24) about the patients referred to smoking cessation polyclinics, it is observed that 9% of the patients were referred to the smoking cessation clinic by a doctor and 87% of the patients were referred due to their own needs. In this study, there is no explanation about patients' needs.

CONCLUSION

In conclusion, it is clear that in this study, the most effective factor in spontaneous smoking cessation is the fear of illness. Although less important, economic situation and family pressure are also important factors in spontaneous smoking cessation. According to our research, the creation of tobacco-free areas and the prohibition of smoking in closed areas are supported by the community. However, the written visual warnings on cigarette packs seem to be not very effective. It may be useful to highlight visual and written materials about diseases to provide information for preventing people from using tobacco products or to enabling them to quit smoking. These materials can also change the attitudes and behaviors of a family on smoking. In this research, in family pressure, which appears to be another reason for quitting smoking, it is observed that the pressure from children takes the place of parental pressure at older ages. It is important that the materials to be prepared in this regard should be prepared by taking advantage of psychiatrists and guidance services so as not to have a negative effect on children and adolescents. In addition, it is necessary to fully abide by the laws on smoking to prevent children and young people from smoking. Abiding by the laws will help reduce access to cigarettes and smoking rates. The limitation of our research is that it is not based on cross-sectional data covering the entire country. Further publications are needed to determine the rates of those spontaneously quitting smoking and to investigate effective factors for spontaneous cessation. The drugs that are used in smoking cessation treatments have been shown to be effective in quitting. However, there is undoubtedly an important group that spontaneously quit smoking. By examining these, the investigation of smoking cessation methods without assistance and pharmacotherapy, which is expensive and has some side effects, can be considered.

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Informed Consent: Verbal informed consent was obtained from patients who participated in this study.

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