TJFM&PC Turkish Journal of Family Medicine and Primary Care

Original Research / Özgün Araştırma

Basic Behavioural Characteristics of Tobacco Use in Patirnts Who Plan Quitting

Tütün Kullanımını Bırakmayı Düşünen Hastaların Tütün Kullanımına İlişkin Temel Davranış Özellikleri

Olesya Aksel[1*], *Okay Bashak*[2]

ABSTRACT

Aim/Background. Most smokers try to stop smoking without professional support and soon begin to smoke again. In our country, the number of admissions to smoking cessation outpatient clinics are gradually increasing due to the anti-smoking campaigns and increasing smoking-related diseases. The aim of the present study was to investigate the basic behavioural characteristics of tobacco use in patients who plan to quitting. Methods.Patients who applied to Outpatient Clinics of Family Medicine Department of Adnan Menderes University Hospital between September 1st, 2017 and August 31st, 2018 with the aim of smoking cessation were included in this prospective descriptive study.Data collection was done through the follow-up protocol form of smoking cessation outpatient clinic. Data analysis was done by using SPSS 18.0 program. Besides comparative statistical methods, t test and Mann Whitney-U test were used for quantitative variables, and chi-square test was used for categorical variables. Results.The mean age of 146 patients who were mostly male was 41.8 years. The most common reason for quitting smoking was fear of being ill or the present disease (69.9%). The mean age of starting to smoke was 16.4 years and the smoking-load was 28.6 packs/year. The age of starting smoking was similar in males and females however males had smoked more heavily(smoking load was 212 package/year and 32.9 package year in females and males, respectively, p=0.08).Approximately one third of smokers were nicotine-dependent at very high levels and started to smoke with social impact (59.6%). Stress was the most common factor of desire to smoke (60.3%). Approximately 74% of the cigarette addicts were at the stage of preparing to quit smoking and the most common medical treatment used was nicotine replacement treatment (69.9%). Conclusions.Smokers who want to quit smoking generally start smoking due to social impact at an early age and use cigarettes as a tool of coping with stress and want to quit smoking due to diseases or fear to be ill. It is important to focus on the basic characteristics of the patients' smoking behaviour in smoking cessation process.

Key words: smoking quitting, counselling, basic behavioural characteristics of the smokers

ÖZET

Amaç. Sigara içenlerin çoğu sigara bırakmayı yardımsız olarak denemekte ve kısa süre sonra tekrar sigara içmeye başlamaktadır. Ülkemizde sigara karşıtı kampanyalar ve sigara kullanımına bağlı giderek artan hastalıklar nedeniyle sigara kullanan kişilerin sigara bırakma polikliniklerine başvuru sayısı günden güne artmaktadır. Çalışmamızın amacı, tütün kullanımını bırakmayı düşünen hastaların tütün kullanımına ilişkin temel davranış özelliklerinin araştırılmasıydı. Yöntem.İleriye dönük tanımlayıcı tipteki araştırmaya Adnan Menderes Üniversitesi (ADÜ) Aile Hekimliği Polikliniğine 1 Eylül 2017 - 31 Ağustos 2018 tarihleri arasında sigara kullanımını bırakmak için başvuran sigara içicileri katıldı. Veri toplama tütün kullanımını bırakma polikliniği izlem protokolü formu,veri analizi ise SPSS 18.0 programı ile yapıldı. Tanımlayıcı istatistiksel yöntemlerin yanı sıra niceliksel değişkenler için t testi ve Mann Whitney-U testi, kategorik değişkenler için ki-kare testi kullanıldı. Bulgular. Çoğu erkek olan 146 katılımcının yaş ortalaması 41,8 idi. En çok ifade edilen sigarayı bırakma nedeni hastalık ya da hasta olma korkusuydu (%69,9). Başvuranların sigaraya başlama yaşı ortalama 16,4 ve toplam sigara içme yükü 28,6 paket/yıldı. Kadın ve erkeklerin sigaraya başlama yaşı benzerdi ancak erkekler daha yoğun şekilde sigara içmişti (kadınlarda sigara içme yükü ortalama 21,2 paket/yıl, erkeklerde 32,9 paket/yıl, p=0,008). Yaklaşık üçte biri çok yüksek düzeyde nikotin bağımlısı olan içicilerin %59,6'sı sosyal etki ile sigaraya başlamıştı. Sigara içme isteğini en çok stres artırmaktaydı (%60,3). Yüzde 74'ü sigara bırakmaya hazırlanma evresinde gelen sigara bağımlılarına en çok verilen tıbbi tedavi %69,9 ile nikotin replasman tedavisi idi.Sonuç. Sigarayı bırakmak isteyen içiciler sigara içmeye daha çok sosyal etki ile ve erken yaşta başlamakta, en çok stresle başa çıkma aracı olarak sigara kullanmakta ve hastalık ya da hastalık korkusuyla sigarayı bırakmak istemektedir. Sigara bırakma danışmanlığı sürecinde hastaların bu temel sigara içme davranış özelliklerine de odaklanmalıdır.

Anahtar kelimeler: Sigara bırakma, danışmanlık, sigara içicilerin davranış özellikleri

Received Date: 15.06-2019, Accepted Date: 18.09-2019

*[1] Adnan Menderes University, Department of Family Medicine, Aydin, Turkey

*[2]Adnan Menderes University, Department of Family Medicine, Aydin, Turkey

***Address for Correspondence / Yazışma Adresi:** Olesya Aksel, Adnan Menderes University, Department of Family Medicine, Aydin, Turkey

E-mail: olesyaaksel@gmail.com

Aksel O., Bashak O., Basic Behavioural Characteristics of Tobacco Use in Patirnts Who Plan Quitting.TJFMPC, 2019;13 (4): 542-547.

DOI: 10.21763/tjfmpc.651447

INTRODUCTION

Tobacco use is one of the leading causes of preventable deaths and diseases in the world.According to the World Health Organization (WHO), 1.3 billion people around the world smoke and about 6 million people die each year due to smoking.[1]In our country, it is known that 100.000 people annually die due to smoking. Smoking is a major public health problem known to cause cancer, heart and lung diseases.[2]

According to data of Turkey Global Adult Tobacco Survey (GATS, 2012) 14.8 million people (27.1%) smoke in Turkey.[3]One of the reasons for the high prevalence of smoking is low smoking cessation rates. Most smokers try to stop smoking without help, and many of them start smoking again soon.[4]It has been shown that only 7.5% of the smokers who do not receive help during smoking cessation can remain smoke-free for a period of five months and that behavioural or pharmacological support increases the success rate to 15-30%. While behavioural change counselling and motivational support are the most commonly used methods, behavioural change support with different nicotine replacement preparations and other pharmacological drugs increases the success rates.[5]

Social awareness, smoking ban in indoor environments, emerging diseases and economic reasons increase the referrals to smoking cessation clinics for the smokers in Turkey. In these clinics, smoking cessation processes are supported by medical treatment and behavioural approach. Smoking cessation clinics are the focal points of struggle against smoking.[6]In these outpatient clinics, motivational support is provided and pharmacological treatments are started by acting in cooperation with the patient. As a result, the success of smoking cessation also increases. Understanding smoking behaviour of smokers in smoking cessation attempts is one of the important reasons affecting success.

In this study, it was aimed to investigate the basic behavioural characteristics of tobacco use of the patients who applied to Family Medicine Outpatient Clinic of Adnan Menderes University Medical School within one year.

MATERIALS AND METHODS

The aim of this prospective descriptive study was to include in all patients applying to Family Medicine Outpatient Clinic between 1 September 2017 and 31 August 2018 with the aim of smoking cessation.The data of this study were obtained from patient records collected through the follow-up protocol of smoking cessation of the department. The study was approved by the Non-Interventional Clinical Research Ethics Committee of Adnan Menderes University (Protocol: 2017/1223).

General evaluation (socio-demographic characteristics, behavioural characteristics related to tobacco use) and physical examination are performed, and Fagerström Nicotine Addiction Test (FNBT) is used to determine the level of nicotine dependence, in the first interview according to the follow-up protocol of smoking cessation outpatient clinic.Among the socio-demographic characteristics, age, gender, occupation, marital status, education level, family income level, residence, health insurance are questioned. Behavioural characteristics related to tobacco use including age and the cause of starting smoking, current smoking status (cigarettes/day), smoking intensity (pack/years), family smoking, previous smoking cessation thoughts and experiences, obstacles in previous smoking cessation attempts, the factors that increase the desire to smoke, the reasons for smoking cessation are questioned. Following the determination of smoking cessation motivation staging (pre-contemplation, contemplation, preparation, action, maintenance) and evaluating smoking cessation decision, the behavioural change counselling for smoking cessation and appropriate pharmacological treatment with behavioural support are given to the patients. Patients are followed up with support interviews at 1 week, 1 month, 3 months, 6 months and 1 year after quitting smoking.

Data were analysed with IBM SPSS 18.0 statistical program. In addition to descriptive statistical methods, Shapiro-Wilk test was used to test the normality of data distribution. Among comparative statistical methods, t test and Mann Whitney-U test were used for quantitative variables, and chi-square test was used for categorical variables. The statistical significance level was accepted as $p<0.05$.

RESULTS

The mean age of 146 participants included in our study was 41.8 ± 14.0 years (range 18-73 years). The socio-demographic characteristics of the participants who are mostly men(63.0%) are given in Table 1. Most of the participants reached out to our outpatient clinic by self-searching (62.3%) and their own

Table 1.The socio-demographic characteristics of the participants, n=146			
Socio-demographic characteristics		**Number**	**%**
Age (years)	18-24	19	13,0
	25-44	**69**	**47,2**
	45-64	49	33,6
	≥65	9	6,2
Gender	Female	54	37,0
	Male	**92**	**63,0**
Education level	**<9 years**	**51**	**34,9**
	9-12 years	44	30,2
	>12 years	**51**	**34,9**
Income level	<1500 TL*	33	22,6
	1500-4500 TL	**90**	**61,6**
	>4500 TL	23	15,8
Marital status	**Married**	**96**	**65,8**
	Single	37	25,3
	Other	13	8,9
Residence	**Urban**	**127**	**87,0**
	Rural	19	13,0
Occupation	**Work**	**81**	**55,5**
	Don't work	41	28,1
	Housewife	24	16,4
Alcohol use	Yes	66	45,2
	No	**80**	**54,8**

**TL: Turkish Lira*

Table 2. The reasons for the applicants' smoking cessation	
The reason of smoking cessation	**Number (%)**
Disease, fear of being sick	**102 (69,9)**
Social pressure (family, friends, doctor's recommendation)	57 (39,0)
Economic reasons	11 (7,5)
The desire to be a good example	19 (13,0)
Other	14 (9,6)

**Multiple reasons for quitting may be specified*

Table 3. Chronic diseases of the patients who apply for smoking cessation, n=146	
Disease	**Number (%)***
HT, DM, CVD**	37 (25.3)
Cancer	13 (8.9)
COPD, asthma**	**41 (28.1)**
Mental discomfort	19 (13.0)
Other	24 (16.4)

**More than one disease may be specified*
***HT:hypertension, DM: diabetes mellitus, CVD: cardio-vascular disease, COPD*: chronic obstructive pulmonary disease

The reason most expressed by the applicants for quitting smoking was the presence of a disease or fear of being sick (69.9%).The reasons for the applicants' smoking cessation are given in **Table 2**.

At least one chronic disease was present in 95 (65.1%) of the applicants as a reason to quit smoking. Chronic disease conditions of the patients who applied for smoking cessation are given in **Table 3**.

Table 4. Smoking characteristics of the participants according to gender, n=146			
Smoking characteristics	**Mean (± SD)**		**Statistics**
	Females	**Males**	
Age of starting smoking	16,7 (±3,4)	16,2 (±5,1)	p=0,256
Daily smoking amount (cigarette/day)	19,8 (±7,7)	23,0 (±13,0)	p=0,296
Smoking load (pack/years)	**21,2 (±17,0)**	**32,9 (±26,7)**	**p=0,008**

**Mann Whitney-U test were used for statistic*
SD: Standard deviation

The mean age to start smoking was 16.4 ± 4.5 years (7-41 years old). The mean amount of cigarettes smoked a day was 21.8 ± 11.4 cigarettes and the mean smoking load was 28.6 ± 24.2 pack/year. In 58.9% (86 subjects)of the applicants, at least one family member was smoking. According to Fagerström nicotine addiction test scores, 34.3% (50 subjects) of the applicants were highly dependent. Analysing smoking characteristics according to gender showed that smoking load(pack/years) of females was significantly less ($p < 0.05$). The smoking characteristics of females and males are comparatively given in **Table 4**.

Social impact (59.6%), individual effect (curiosity, wannabe, self-proof) (32.2%), coping with stress (6.8%) and other causes (1.4%) were noted as the causes for starting smoking. Almost all of the applicants (95.2%) had previously thought to quit smoking; 129 subjects (88.4%) tried to quit smoking with an average of 2.6 ± 2.3 times previously and 21 subjects (14.4%) received medical help in the previous attempts to quit. The most common barrier to quit smoking was nicotine withdrawal symptoms (79.1%), with the other reasons of presence of smokers at home/work (24.8%), increased appetite, weight gain (20.9%), and lack of willpower (11.6%).

Stress (60.3%) and tea/coffee drinking (58.9%) were the most common factors to increase smoking. Post-meal (34.2%) and anxiety-depression status (14.4%) were among the other causes.

Most of the applicants were (74.0%) at preparation stage of motivation. Behavioural support was given to all participants, and nicotine replacement therapy (NRT) was the most common used medical treatment (69.9%).
Forty one subjects (33.1%) and 35 subjects (28.2%) did not smoke at the first and third month follow-up, respectively.The most common cause of failure was patient non-adherence to treatment (44.9%).Other causes were excessive desire to smoke (27.0%) and stress (16.9%).

DISCUSSION

Most participants of our study which aimed to investigate the basic behavioural characteristics of the smokers who intend to quit smoking were male. In many studies, the number of males applying to smoking cessation clinics has been found higher.[7,8] This can be explained by the higher prevalence of smoking among males in our country and all over the world.[1,3]

Age characteristics of the participants are consistent with the findings of the other studies.[7,8,9] Almost half of the participants are in the age group of 25-44 years. In a study conducted in our country, nearly one third of the applicants were in the age group of 40-50 years.[10] A similar age distribution is observed in multicentre studies and meta-analyses abroad.[11,12] The high rate of cases in the middle age group can be explained by the fact that the middle age is a more risky period for emerging of smoking-related health problems.

The rate of alcohol use is also high in our study. The education distribution is balanced and most participants have middle income. According to the results of a study conducted in our region, alcohol consumption has been found as 46.9% in smokers and 15.8% in non-smokers.[13]These data suggest that smoking and alcohol intake trigger each other.

In our study, the mean age of the applicants to start smoking is quite low, and it is consistent with the other studies identified as 16-18 years of age. These findings can be explained by the fact that individuals are more prone to risky behaviours at adolescent ages.The mean age of starting smoking of males and females is almost the same. Some other studies in our country have found that males start smoking at a slightly younger age (16-18 years) than females (17-20 years).[14] The fact that the average age for starting smoking is smaller than 18 years of age suggests that children and adolescents should be given priority in the struggle against tobacco products.

According to the results of our study, the social impact is the mostly reported reason for starting smoking. In the study of Yaşar Z. et al, the

most common reason for smoking is the environmental impact.[7]In another study, the wannabe to start smoking has been found as the most frequent reason for smoking.[8] These findings emphasize the importance of the social environment that smoking cessation interventions should be taken into consideration.

Our results of current smoking status and average smoking load are consistent with the findings of the other studies.[7,11]Men use more cigarettes and smoke longer than women.[15]Our result that more than half of the applicants has high and very high levels of nicotine addiction is consistent with data from the other studies; in other words, highly dependent smokers mostly apply to smoking cessation clinics.

Factors that most frequently increase the applicant's desire to smoke are stress, tea/coffee drinking and eating, respectively. In the study of Yaşar et al., the most frequently mentioned factor for smoking desire also is stress.[7] As known, smoking is used as a way to cope with stress by the smokers. Studies are available that have found that post-meal smoking is the most important factor in smoking.[16,17]This suggests that smoking is a ritualized habit as well as its exhilarating effect.

Having disease or disease fear has mostly been stated by the participants as the reasons for smoking cessation. The presence of an additional disease and family history of COPD/asthma, and cancer increase the motivation of smokers to quit smoking. In the other studies, the most common causes of smoking cessation are health hazard, medical problem, fear of deterioration of health and existing disease.[8,18] In another study conducted in our region, health problems have been found to be the most important cause of smoking cessation.[13]

Most participants have additional chronic diseases. The most commonly seen chronic diseases are COPD and asthma, with hypertension, diabetes, and cardio-vascular diseases as other chronic diseases. In an epidemiological study conducted in our region, it has been found that the most common chronic diseases among smokers are cardio-vascular diseases, diabetes, hypertension, COPD and asthma.[13]

Among the major obstacles to previous smoking cessation trials are nicotine withdrawal symptoms, and the second one is the presence of smokers at home/work.Similarly, nicotine withdrawal symptoms are indicated as the most important obstacle in some studies.[9,18]

The rate of quitting smoking at the third month of follow-up seems to be low. In some studies in Turkish literature, it varies between 34-55% at the third month[8,10,16,19]. Low smoking cessation rate in our study could be explained by non-compliance to treatment; almost half of the participants have stated that they did not comply with the recommended treatment for various reasons. This may be due to the fact that our experience of smoking cessation counselling is not yet sufficiently developed. It may also have been effective that patients have had to pay the fees of smoking cessation drugs from their own pocket. Since our outpatient clinic was not registered to the Tobacco Dependency Treatment System (TUBATİS) during the study period, very few of the participants were able to get drugs free of charge. World Health Organization focuses on facilitating access to medicines for smokers who consider quitting smoking.[20]

CONCLUSION

The main results of the present study are as follows: . Most of the patients who apply for smoking cessation apply by their own request. The starting age of smoking is below 18 years, and the most important reason for starting smoking is social impact. Family physicians may play an important role in preventing adolescents from gaining smoking behaviour. It is important for family physicians to question the smoking status of all their adolescent and adult patients and give a quitting advice for smokers.

More than half of the applicants are highly addicted to nicotine. Smokers who want to quit smoking are most likely to use cigarettes as a means of coping with stress and want to quit smoking because of a disease or disease fear. Few smokers have received medical help in their previous trials. It should also be focused on these basic smoking behaviour characteristics in the smoking cessation process.

REFERENCES

1. World Health Organization. Tobacco Fact sheet 2016 http://www.who.int/mediacentre/factsheets/fs339/en (Erişimtarihi: 18.05.2017).
2. Karlıkaya C, Öztuna F, Solak Z ve ark. Tütünkontrolü. ToraksDergisi 2006;7:51-64.
3. KüreselYetişkinTütünAraştırması. Türkiye 2012. Sağlık Bakanlığı Yayın no: 948, Yayın tarihi 2014;s. 34.
4. Hughers JR, Gulliver SB et al. Smoking cessation among self-quitters. Health Psycol. 1992; 11: 331-334.

5. Simon AJ, Carmody TP, Hudes HS, et al. Intensive smoking cessation counseling versus minimal counseling among hospitalized smokers treated with transdermal nicotine replacement: A randomizedtrial. Am J Med 2003;114:555-62.
6. West R, McNeill A, Raw M. Smoking cessation guidelines for health professionals: an update. Thorax 2000; 55: 987-99.
7. Yaşar Z, Kurt Ö. K ve ark. Biryıllıksigarabırakmapolikliniksonuçlarımız: sigarabırakmadaetkiliolanfaktörler. EurasianJournal of Pulmonoloji; 2014; 16: 99-104
8. Argüder E.,Hasanoğlu C., Karalezli A. Sigarabırakmayaeğilimiartıranfaktörler. TuberkToraksDerneği; 2012. 60(2): s. 129-135.
9. İzmir A, Akçay Ş ve ark. BaşkentÜniversitesi İzmir ZübeydeHanımHastanesisigarabırakmapolikliniği 1 yıllıkizlemsonuçları. BalıkesirSağlıkBilimleriDergisi. 2015; 4; 2: 65-70.
10. Kökten R. Trakyaüniversitesi tıp fakültesisigarabırakmapolikliniğiçalışmalarının değerlendirilmesi. Uzmanlıktezi. TrakyaÜniversitesi Tıp FakültesiGöğüsHastalıklarıAnabilim Dalı. Edirne, 2008: 30-55
11. Tonnesen P, Paoletti P, Gustavsson G, Russel MA, Saracci R, GulsikA et al. Higher dosage nicotine patches increase one-year smoking cessation rates: results from the European CEASE trial. EurRespir J 1999; 13: 238-46.
12. Fiore MC, Smith SS, Jorenby DE, Baker TB. The effectiveness of the nicotine patch for smoking cessation. A meta-analysis. JAMA 1994; 271: 1940-7
13. AdayAvcı B. Aydın iliEfelerilçesi'ndeailesağlığımerkezlerinebaşvurankişilerdesigaraiçmesıklığıveilişkilifaktörler. Uzmanlıktezi. Adnan Menderes Üniversitesi Tıp FakültesiAileHekimliğiAnabilim Dalı. Aydın, 2018: 30-62
14. Öncel S, Gebizlioğlu Ö, Alioğlu FA. Risk Factors For Smoking Behavior Among University Students. Turk J Med Sci 2011;41(6):1071-1080.
15. Royce MJ, Corbett K, Sorensen G, Ockene J. Gender, social pressure and smoking cessations: the community intervention trial for smoking cessation (commit) at baseline. Soc. Sci. Med. Vol. 44 No: 3, pp 359-370, 1997.
16. Fidan F, Pala E, Ünlü M, ve ark. SigaraBırakmayıEtkileyenFaktörlerveUygulananTedavilerinBaşarıOranları. The Medical Journal Of Kocatepe 2015;6(3):27-34.
17. Sağlam L. Investigation Of The Results Of A Smoking Cessation Clinic And The Factors Associated With Success. Turk J MedSci 2012;42(3):515-522.
18. Ünüvar E. M.,Dişcigil G. Sigarayıbırakmagirişimlerindebaşarıyıetkileyenfaktörler – hekimadaylarıörneği. Journal of Turkish Family Physicions. 2017. 8(3): 57-65.
19. Yılmaz A, Turan A. SigaraBırakmatedavisindekihastalarımızınge nelözelliklerivetedavibaşarısınıetkileyenfaktörler. İzmir GöğüsHastanesiDergisi. 2015; XXIX; 3:145-149.
20. WHO. Report on the Global Tobacco Epidemic, 2011-MPOWER. Warning about the dangers of tobacco. Accessed date: 05.01.2012. Available from: http://whqlibdoc.who.int/publications/2011/9789240687813_eng.pdf: p. 49