Smoking of health students "State and Foundation University Example"

Nuran Akyurt[1a]

[1]Vocational School of Health Services, Department of Medical Imaging Techniques, Marmara University, Istanbul, Turkey

Abstract: The purpose of the study is to take a look at the smoking habits of the undergraduate students studying in the health programs of state and private universities, and to determine their opinion about the smoking ban. The research is a descriptive type study. The survey was conducted in February 2017. The participation rate in the survey is 75.5%. A questionnaire consisting of 23 questions was applied to the students. In the questionnaire, students were asked about their socio-demographic characteristics, the age at which they started smoking, in which situations they resort to cigarette, their opinion about addiction and on the implementation of the law "Prevention and control of the harmful effects of tobacco products".

Keywords: Cigarettes, Smoking, Health Students, Law, Habit

1 Introduction

Tobacco use is currently responsible for the death around the world which considers a public health problem worldwide. Tobacco smoking is a direct cause of high morbidity all over the world, which could be prevented. Substantial and sustained efforts are required to further reduce smoking prevalence and the associated morbidity and mortality [1]. Smoking causes different diseases such as cancer; about 90 % of all lung cancer deaths in men and 80 % of all lung cancer deaths in women [2, 3]. Smoking is a behavior that generally starts in adolescents. An early exposure or initiation of smoking is associated with lower cessation rates, longer duration of smoking, and higher nicotine dependence in adulthood [4]. About 70 % of adolescent smokers are likely to become adult smokers because some adolescent may believe that can quit smoking at any time [5, 13]. Strong relationship exists between cigarette smoking and premature death [6]. According to WHO 10 million deaths annually will be attributed to cigarette smoking by 2030 [7]. Tobacco is the biggest cause of adult death in developed countries [8] while smoking is the single most preventable cause of death among the greatest risk factors for mortality. According to WHO, there are about 1 billion smokers in the world and annually 6 million people succumb to death from cigarette smoking

[a] Corresponding author: nakyurt@hotmail.com

[9]. If a person quits smoking by age 30, his life expectancy is almost same as that of non-smoker [10]. According to WHO, there are about 1 billion smokers in the world and annually 6 million people succumb to death from cigarette smoking [11]. Worldwide China has the highest tobacco consumers and this is attributed to sharing and gifting tobacco products [12]. Smoking is widespread in the developing countries, the spread is growing at a high rate especially among young people.

Numerous studies show that medical students and health professionals themselves smoke cigarettes despite knowing its adverse effect on health. In the literature, there are studies on the smoking habits of the students [13, 24]. The effect of this result may not only effect on the health of individuals, but also an economic burden which includes direct medical care for tobacco-induced illnesses and loss of life from early death [25]. The effect of this result may not only effect on the health of individuals, but also an economic burden which includes direct medical care for tobacco-induced illnesses and loss of life from early death [26].

2 Objective

As in the whole world, even in our country smoking is an important health problem which is one of the social problems and which can be addictive in a short period of time brings an economically additive load to the person who smokes and also affects his health negatively. Smoking is a harmful and widespread habit in terms of community health. Smoking is a problem all over the world as well as waiting for an urgent solution in our country.

It is shown as risk factor for six out of the eight death causes in the world. The purpose of the study is to take a look at the smoking habits of the undergraduate students studying in the health programs of state and private universities, and to determine their opinion about the smoking ban.

The purpose of this study was to determine the smoking status of the undergraduate students studying at the state and foundation universities in the health field and to evaluate the points of view of the "Law on the Prevention and Control of Hazards of Tobacco Products" which took place in 2008. In accordance with this purpose, the sociodemographic characteristics of the students (gender, age, university) as well as the position on smoking, smoking cessation and the laws on smoking bans are to be assessed to show whether there is a significant difference.

3 Materials and Methods

Studies that examine the prevalence and factors that initiate smoking were identified through online literature using the following database: Science Direct, Web of Science, Google Scholar and Pubmed.

The research is a descriptive type study. The survey was conducted in February 2017. The participation rate in the survey is 75.5%. Selection sampling technique was not used in the research. All students who wanted to fill out the questionnaire were included in the sampling. The data were collected in a form developed in line with the literatüre. A questionnaire consisting of 23 questions was applied to the students. In the questionnaire, students were asked about their socio-demographic characteristics, the age at which they started smoking, in which situations they resort to cigarette, their opinion about addiction and on the implementation of the law "Prevention and control of the harmful effects of tobacco products". The obtained data were evaluated by transferring them to SPSS 17.0 program. The data shows arithmetic mean, standard deviation values, percent and number values. T testi ve Anova yapılmıştır. Statistical significance was accepted as $p<0.05$.

4 Results

The total number of students participating in the survey is 867. The questionnaire included questions about students 'sociodemographic characteristics, smoking status, relatives and friends' smoking status, smoking cessation considerations, and smoking prohibition at closed places. The distribution of the answers to the questions is given in Tables 1 - 6.

Table 1. Sociodemographic characteristics of the students

Gender		
Female	546	63,0%
Male	321	37,0%
Total	867	100,0%
Age range		
between 18 - 23	738	85,1%
between 24-28	104	12,0%
between 29 - 34	17	2,0%
35+	8	0,9%
Total	867	100,0%
Studying at		
State university	511	58,9%
Foundation university	356	41,1%
Total	867	100,0%
Field of study		
Medical Imaging	618	71,3%
Anesthesia	33	3,8%
Pathology Laboratory	106	12,2%
First and Emergench Help	53	6,1%
Nursing	42	4,8%
Physical Therapy and Rehabilitation	3	0,3%
Orthopedic Prosthetic Orthosis	12	1,4%
Total	867	100,0%

Of the students who participated in the survey, 63% were female, 37% were male; 85.1% are in the age range between 18-23. 58.9% of the students are studying at state universities, 41.1% at foundation universities in associate degree programs; Most of them, 71.3% studying in medical imaging techniques associate degree program.

Table 2. Sociodemographic characteristics of the students

The economic situation of the family		
Poor	3	0,3%
Bad	50	5,8%
Mediocre	599	69,1%
Good	215	24,8%
Total	867	100,0%
Who are you living with at school time?		
State Dormitory Institution	636	73,4%
Priate dormitory	91	10,5%
People sharing an apartment	33	3,8%
with family	36	4,2%
with relatives	71	8,2%
Total	867	100,0%

As can be seen in the table, the students indicated that their families' economic situation was moderate with 69.1%. The proportion of students staying in state dormitories during education is 73.4%.

Table 3. Smoking status of the students

Smoking status		
Never smoked	340	39,2%
Once tried	195	22,5%
Previously smoked	49	5,7%
Social smoker	131	15,1%
Smoking regularly	152	17,5%
Total	867	100,0%
Age to start smoking		
Never tried	330	38,1%
Under 13 years	39	4,5%
Between 13 - 18	345	39,8%
Between 19 – 22	143	16,5%
22+	10	1,2%
Total	867	100,0%
Causes of starting smoking		
Smokers in the family	18	2,1%
Friend circles	242	27,9%
Role models like teacher etc.	6	0,7%
Cinema / Sports Stars	3	0,3%
Stress / Troubles	157	18,1%
No answer	441	50,9%
Total	867	100,0%
Do you smoke in the presence of maily elders?		
Yes	77	8,9%
No	790	91,1%
Total	867	100,0%
Smoking status dring exam period		
It is increasing	241	27,8%
It does not change, same level	626	72,2%
Total	867	100,0%

It is seen that the number of non-smokers (n=340, 39,2%) is higher than that of smokers (n=152, 17,5%). 39.8% (n=345) who stated that they started smoking between 13 and 18 years of age. Friendship circumstance (n=242, 27.9%) and stress/distress (n=157, 18.1%) were shown as the reasons for starting. 72.2% would not and do not smoke in the presence of elders, 27.8% of the students said that smoking increased at special times like the exam period, and 72.2% of them did not.

Table 4. Smoking status of the relatives

Smoking status of mother / father		
None of both	378	43,6%
Mother smokes	68	7,8%
Father smokes	270	31,1%
Both of them smokes	151	17,4%
Total	867	100,0%
Do your three closest friends smoke?		
None of them	294	33,9%
Only one them	203	23,4%
Two of them	183	21,1%
Three of them	187	21,6%
Total	867	100,0%

When we consider the smoking situation of relatives and friends, in the families the mother (n=68, 7.8%), father (n=270, 31.1%) or both (n=151, 17.4%) are smokers. As can be seen from the table, the majority of friends (n = 573, 66.1%) are also smokers.

Table 5. Smoking cessation of the students

Doyou want to quit smoking?		
Want to quit	369	42,6%
undecided	460	53,1%
Want to continue to smoke	38	4,4%
Total	867	100,0%
Doyou resolve to give up smoking in the last 12 month?		
Yes	225	26,0%
No	295	34,0%
No answer	347	40,0%
Total	867	100,0%

The number of students who want to quit smoking (n = 369, 42.6%) is high. The number of people who thought in the last 12 month to quit smoking (n=225, 26%) and those who did not (n=295, 34%) are close to each other.

Table 6. Students' thoughts on smoking ban

What is your opinion about the ban on cigarette advertising?		
Necessary	605	69,8%
Unnecessary	262	30,2%
Total	867	100,0%
What do you thing about smoking ban in restaurants, cafes, cafeterias, etc.?		
Necessary	786	90,7%
Unnecessary	81	9,3%
Total	867	100,0%
What do you think about smoking ban on public transportation?		
Necessary	844	97,3%
Unnecessary	23	2,7%
Total	867	100,0%
Prohibition of the sale of cigarettes to children younger than 18 years		
Necessary	821	94,7%
Unnecessary	46	5,3%
Total	867	100,0%

The ban on cigarette advertising is appropriate find 69.8% of respondents, 90.7% of them think that it is necessary to prohibit smoking in restaurants, cafes and cafeterias, 97.3% of them think that it is correct to prohibit smoking in public transportation vehicles. The sale of cigarettes to adolescents under 18 years of age should be prohibited find 94.7% of the students.

5 Analysis of the research questions

T-test (Independent Samples Test) and One-way ANOVA (Analysis of Variance) were used to test the hypotheses of our research. Independent samples T-test is a statistical technique used to test whether the difference between the averages is significant at a certain confidence level (95%, 99%, etc.), by comparing two groups that are independent of each other or a sample with a dependent variable [27].

5. 1 T-test results

Independent samples T-test were used to measure the level of quitting smoking by gender.

Table 7. Measuring the level of quitting smoking by gender

Dimension	Gender	n	Mean X	Std. Deviation SS	F	p
To quit smoking	Male	546	1,5311	1,04922	17,068	,000*
	Female	321	1,7196	1,13574		

*p<0,05

If we compare the level of quitting smoking by gender, X for female students is 1,5311 and for male students 1,7196. As a result of the analysis, a significant difference was found according to the level of quitting smoking by gender. It was found that the level of quitting smoking by female students was significantly higher.

Table 8. Measuring the level of quitting smoking by university

Dimension	University	n	Mean X	Std. Deviation SS	F	p
To quit smoking	State	511	1,7006	0,5589	7,001	0,008
	Foundation	356	1,5	0,56419		

If we compare the level of quitting smoking by university, X for state universities is 1,7006 and for foundation universities 1,5000. As a result of the analysis, no significant difference was found according to the level of quitting smoking by university.

Table 9. Age to start smoking by university

Dimension	University	n	Mean X	Std. Deviation SS	F	p
Age to start smoking	State	511	1,4501	0,97264	80,202	0,000*
	Foundation	356	1,8174	1,19757		

*p<0,05

If we compare the age to start smoking by university, X for state universities is 1,4501 and for foundation universities 1,8174. As a result of the analysis, a significant difference was found according to the age to start smoking by university. It was found that the age to start smoking by foundation universities was significantly higher.

5.2 One-way Anova results

One-Way ANOVA test was used for the research hypothesis. One way ANOVA is performed to test whether the difference between three independent or more sample averages is significantly different from zero.

Table 10. Levels of quitting smoking according to age ranges

Dimension	Agerange	n	X	SS	F	p	Significance
Wants to quit smoking	18-23	738	1,6301	0,577	2,317	0,074	
	24-28	104	1,5769	0,515			
	29-34	17	1,5882	0,507			
	35+	8	1,125	0,353			
	Total	867	1,6182	0,569			

If we compare the level of quitting smoking by age range of the students, X for age range 18-23 is 1.6301 and for age range 24-28 it is 1.5769. One-way analysis of variance, a parametric test of statistical tests, was used to test whether university students significantly differentiated their desire to quit smoking. As a result of the variance analysis, a statistically significant difference was calculated for F = 2,317, (p <0,05). The Tukey test was used as a post-hoc test to test the source of the difference. The direction of the difference is the age range of 18-23 and 24-28 years.

6 Discussion

This study summarized and provides insight into the prevalence of smoking among students and factors of early intention of smoking among students in different ages. The prevalence of current smoking found in this review study among students was alarming especially among adolescents [29, 30]. The rate of those who stated that they tried smoking cigarettes when they were under 13 years old was 4,5%; the age range of starting smoking regularly is 13-18 with rate of 39.8%.

As the reason for the start of smoking, health students have indicated the friends (27.9%) and stress/distress (18.1%) in the first place. 17.5% of the students are still smoking regularly.

Adolescence is very important because it will determine what kind of adult the child will be in the future. This period is also important in terms of the habits of the child. If you look at smoking, 300 thousand adolescents die each year due to cigarette and tobacco-related diseases. 70% of premature deaths in adulthood and 1/3 of diseases are due to habits acquired in adolescents [28].

The study show that the influence of friends is the main reason for smoking among adolescents and university students followed by the stress, curiosity and imitation of others. Other recent studies done in other countries, peer pressure was also the reason, initiating from smoking [31, 32]. As a result of the analyzes made, the desire to quit smoking in female students was found significantly higher than male students. Compared to age, the level of wanting to quit smoking was found to be significantly higher for students who were between the ages of 18-23 and 24-28.

Health students said that parents played very important role in cigarette smoking. Most students think that the prohibition of smoking in public and closed places diminishes the use of cigarettes [33 - 36].

From the students who will work in health care institutions after graduation and will play a good role model in case of smoking we are awaiting in our research, that they will have a low tendency to smoke, knows the harm of smoking and will act accordingly.

If we look at studies about smoking in developed countries we see that non-health educated people who do not receive health education have a significantly higher rate of knowledge of non-smoking and cigarette harm.

7. Conclusion

In order to have lower smoking rates of the health care workers in our country, education is not the only factor in the fight against smoking. A strict smoking policy should be implemented and early counseling among adolescents and awareness campaigns to the health effects of smoking and the prevailing beliefs that smoking habit can easily quit. As they become the future professionals of the society. Smoking control programs should be considered in this group.

Medical personnels should be given regular lectures and video trainings on the hazardous effects of tobacco especially smoking so that not only they refrain from them, but also advise others to refrain from them.

Because restrictive legislation is in effect, cigarette use of the students is reduced even it is low, nevertheless universities must absolutely develop supportive strategies so that their students quit smoking and re-think their quit smoking trainings in their curricula.

References

1. Almutairi, Khalid M. “Smoking Among Saudi Students: A Review of Risk Factors and Early Intentions of Smoking”. J Community Health (2014) 39:901–907. Published online: 2 July 2014 DOI 10.1007/s10900-014-9909-8.

2. U.S. Department of Health and Human Services. (2004). The health consequences of smoking: A report of the surgeon general. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
3. U.S. Department of Health and Human Services (2010) How tobacco smoke causes disease: What it means to you. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
4. Abdalla, A. M., Al-Kaabba, A. F., Saeed, A. A., Abdulrahman, B. M., Raat, H. (2007). Gender differences in smoking behavior among adolescents in Saudi Arabia. Saudi Medical Journal, 28(7), 1102–1108.
5. Center for Disease and Control (CDC). (1994). Preventing tobacco use among young people: A report of the surgeon general. MMWR, 43(RR-4), 1–10.
6. Dhala, A., Pinsker, K., Prezant, D. J. Respiratory heath consequences of environmental tobacco smoke. Med Clin North Am 2004; 88:1535-5.
7. Al-Kaabba, A. F., Saeed, A. A., Abdalla, A. M., Hassan, H. A., Mustafa, A. A. Prevalence and associated factors of cigarette smoking among medical students of King Fahad Medical City in Riyadh of Saudi Arabia. J Family Community Med 2011;18(1):8-12.
8. Boyle, P. Cancer, cigarette smoking and premature death in Europe: a review including the Recommendations of European Cancer Experts Consensus Meeting, Helsinki, October 1996. Lung Cancer 1997;17(1):1-60.
9. WHO. Tobacco free initiative (TFI). 2009. (Accessed on 3rd May, 2017). Health Organization, Media Centre. Tobacco, Fact Sheet N 339. Available from URL: http://www.who.int/tobacco/health priority/en/.
10. Doll, R., Peto, R., Boreham, J. Mortality in relation to smoking: 50 years' observations on Male British doctors. BMJ 2004; 328: 1519.
11. World Health Organization, Media Centre. Tobacco, Fact Sheet N 339. (Accessed on 3rd May, 2017). Available from URL: http://www.who.int/mediacentre/factsheets/fs339/en/
12. Ding, D., Hovell, M. F. Cigarettes, social reinforcement, and culture: a commentary on "Tobacco as a social currency: cigarette gifting and sharing in China". Nikotine Tob Res. 2012 Mar;14(3):255-7. doi: 10.1093/ntr/ntr277. Epub 2011 Dec 16. PMID: 22180592.
13. Wetter, D. W., Kenford, S. L., Welsch, S. K., Smith, S. S., Fouladi, R. T., Fiore, M. C., et al. Prevalence and predictors of transitions in smoking behavior among college students. Health Psychol. 2004 Mar;23(2):168-77. PMID: 15008662 DOI: 10.1037/0278-6133.23.2.168
14. Jradi, H., Wewers, M. E., Pirie, P. R., Binkley, P. F., Ferketich, K. Cigarette and waterpipe smoking associated knowledge and behaviour among medical students in Lebanon. East Mediterr Health J. 2013 Oct;19(10):861-8.
15. Öztürk, C., Bektaş, M., Yılmaz, E., Salman, F., Şahin, T., İlmek, M., et al. Smoking status of Turkish nursing students and factors affecting their behavior. Pac J Cancer Prev. 2011;12(7):1687-92.
16. Ulus, T., Yurtseven, E., Donuk, B. Prevalence of smoking and related risk factors among Physical Education and Sports School students at Istanbul University. Int J Environ Res Public Health. 2012 Mar;9(3):674-84.
17. Askarian, M., Kouchak, F., Youssef, M., Romito, L. M. Comparing tobacco use knowledge, attitudes and practices between engineering students at a public and Islamic Azad university in Shiraz, Iran 2011. Int J Prev Med. 2013 Oct;4(10):1154-61.

18. Sabahy, A. R., Divsalar, K., Bahreinifar, S., Marzban, M., Nakhaee, N. Waterpipe tobacco use among Iranian university students: correlates and perceived reasons for use. Int J Tuberc Lung Dis. 2011 Jun;15(6):844-7.
19. Maziak, W., Fouad, F. M., Asfar, T., Hammal, F., Bachir, E. M., Rastam, S., et al. Prevalence and characteristics of narghile smoking among university students in Syria. Int J Tuberc Lung Dis. 2004 Jul;8(7):882-9.
20. Al-Kubaisy W, Abdullah NN, Al-Nuaimy H, Halawany G, Kurdy S. Epidemiological study on tobacco smoking among university students in Damascus, Syrian Arab Republic. East Mediterr Health J. 2012 Jul;18(7):723-7.
21. Khabour OF, Alzoubi KH, Eissenberg T, Mehrotra P, Azab M, Carroll MV, et al. Waterpipe tobacco and cigarette smoking among university students in Jordan. Int J Tuberc Lung Dis. 2012 Jul;16(7):986-92.
22. Waheedi, M, Al-Tmimy, A. M., Enlund, H. Preparedness for the smoking cessation role among health sciences students in Kuwait. Med Princ Pract. 2011;20(3):237-43.
23. Taha, A. Z., Sabra, A. A., Al-Mustafa, Z. Z., Al-Awami, H. R., Al-Khalaf, M. A., Al-Momen, M. M. Water pipe (shisha) smoking among Male students of medical colleges in the eastern region of Saudi Arabia. Ann Saudi Med. 2010 May-Jun;30(3):222-6.
24. El-Ansari, W., Labeeb, S., Kotb, S., Yousafzai, M. T., El-Houfey, A., Stock, C. Correlates of smoking, quit attempts and attitudes towards total smoking bans at university: findings from eleven faculties in Egypt. Asian Pac J Cancer Prev. 2012;13(6):2547-56.
25. U.S. Department of Health and Human Services. (2004) The health consequences of smoking: A report of the surgeon general. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (Accessed on 3rd May, 2017). Available from: https://www.cdc.gov/tobacco/data_statistics/sgr/2004/index.htm
26. Rothman, K. J., Greenland, S. Causation and causal inference in epidemiology. J. Inf. 2005, 95(Suppl. S1), S144–S150.
27. Ural, A., ve Kılıç, İ. (2005). Bilimsel Araştırma Süreci ve SPSS le Veri Analizi, Detay Yayıncılık, Ankara.
28. World Health Organization, The second decade: Improving adolescent health and development. WHO/FRH/ADH/98.18 Rev.1 (Accessed on 3rd May, 2017). http://www.who.int/maternal_child_adolescent/documents/frh_adh_98_18/en/
29. Âmin, T. T., Amr, M. A., Zaza, B. O. (2011). Psychosocial predictors of smoking among secondary school students in Al- Hassa, Saudi Arabia. Journal of Behavioral Medicine, 34(5), 339–350. Doi:10.1007/s10865-011-9319-7.
30. Agaku, I. T., Ayo-Yusuf, O. A., Vardavas, C. I., Connolly, G. (2014). Predictors and patterns of cigarette and smokeless tobacco use among adolescents in 32 countries, 2007–2011. Journal of Adolescent Health, 54(1), 47–53.
31. Oh, D. L., Heck, J. E., Dresler, C., Allwright, S., Haglund, M., Del Mazo, S. S., et al. (2010). Determinants of smoking initiation among women in five European countries: a cross-sectional survey. BMC Public Health, 10, 74.
32. Rudatsikira, E., Muula, A. S., Siziya, S. (2009). Current cigarette smoking among in-school American youth: results from the 2004 National Youth Tobacco Survey. International Journal for Equity in Health, 8, 10. doi:10.1186/1475-9276-8-1.
33. Gilman, S. E., Rende, R., Boergers, J., Abrams, D. B., Buka, S. L., Clark, M. A., et al. (2009). Parental smoking and adolescent smoking initiation: An intergenerational perspective on tobacco control. Pediatrics, 123(2), e274–e281. Doi:10.1542/peds.2008-2251.

34. Exter Blokland, E. A., Engels, R. C., Hale, W. W. 3rd, Meeus, W., Willemsen, M.C. (2004) Lifetime parental smoking history and cessation and early adolescent smoking behavior. Preventive Medicine 38(3):359–368. [PubMed: 14766120].
35. Gilman et al., Parental smoking and adolescent smoking initiation: an intergenerational perspective on tobacco control. Published in final edited form as: Pediatrics. 2009 February; 123(2): e274–e281. Doi:10.1542/peds.2008-2251
36. Hardy, J. B. (2003). The collaborative perinatal project: Lessons and legacy. Annals of Epidemiology, 13(5), 303–311.