

Prevalence of smoking among universities students of Shahroud in 2010

Saeid Nazemi^{1*}, Reza Chaman²

¹Department of Environmental Health, Faculty of Health, Shahroud University of Medical Science, Shahroud, Iran;

*Corresponding Author: Saeid_Nazemi@yahoo.com

²Department of Basic Sciences, School of Medicine, Shahroud University of Medical Science, Shahroud, Iran

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ABSTRACT

This study in 2010 determined the prevalence of smoking and its associated factors among universities students in Shahroud located in the North Eastern of Iran. 1800 students were selected randomly among 20000 students of Shahroud universities, to complete a questionnaire Which was prepared based on the Global Youth Tobacco Survey. The prevalence of current smoking was 20% (80% male and 20% female). The most important factors in the tendency to smoking were: friends smoking, stress, separation from family and fun.

Keywords: Prevalence; Smoking; Students; Shahroud Insert

1. INTRODUCTION

Cigarette smoking is considered a major public health hazard in the world. It is among the main preventable causes of untimely death, morbidity and mortality worldwide. About 5 million deaths occur annually due to cigarette smoking. If the pattern of tobacco consumption continues at the same pace as today, the morbidity and mortality rates will be doubled (10 million people per year) by the year 2020 [1,2] and 7 million of which will occur in developing countries [3]. Due to high proportion of young In the Islamic Republic of Iran, tobacco control and prevention programmes are very important [4].

Several studies showed increasing trend in smoking among Iranian youth [5-7].

There has been a dramatic increase over the past decade in the numbers of college-age smokers [8]. Based on recent studies the prevalence of smoking increases from the first year to the final year among university students, which underlines the fact that the early years at university are important for targeting anti-smoking activities [9,10]. Students who enter college as non-smokers are

40% less likely to begin smoking if they live in a smoke-free campus [11].

Cigarette consumption shows an increasing trend in many Middle East and North Africa countries [12].

The World Health Organization has reported prevalence of smoking among young people in the Eastern Mediterranean as following: 26.6% in Iran, 20.9% in Kuwait, 17.2% in Iraq, 10.1% in Pakistan and 15.9% in Saudi Arabia [13]. However, the trend and pattern of smoking as well as the quitting rate especially among college students are largely unknown in many of these countries.

This study was carried out to determine the prevalence and it's related factors among University students of Shahroud city.

Text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

2. METHODS

This study was conducted as a cross-sectional descriptive study during a 16-week period (from mid-March 2010 to mid-June 2010). The total number of university students in Shahroud are about 20000. The sample size was estimated as 1800 subjects based on: prevalence = 20%, $\alpha = 0.05$ and precision ($d = 0.15$). The subjects were selected randomly and proportional to size of cash University students. They have to complete the questionnaire which was an Iranian Global Youth Tobacco Survey (GYTS) questionnaire [4]. The data analysis was performed using SPSS, version 11.5 software.

3. RESULTS

There were 1800 university students, including 1076 boys (60%) and 724 girls (40%). The age range was 18 - 35 years and the mean age was 28.5 ± 3.6 years.

The prevalence of smoking among the students was 20%. For any type of tobacco 20% of respondents were current smokers, 80% non smokers. For cigarettes, 39%

were current smokers, while for Hookah (water pipe) the corresponding prevalences were 31% and 5% for Pipe.

Table 1 shows the Distribution of the characteristics of the smoker and nonsmoker groups. Significantly more current smokers were in older age groups 20 - 25 years (72%) and 25+ years (9%) compared with the total sample ($P < 0.001$). Students at the university of Azad and Industrial had the highest prevalence of smoking compared with those at other university; the lowest prevalences were at the university of medical sciences and quranic sciences ($P < 0.001$).

For cigarette smokers the mean daily cost was 10000 (1\$) Iranian riyals (61%).

There were significant differences between smoking and their Degree ($P < 0.001$) there was a significant difference between smoking and Status married ($P < 0.001$). There were significant differences between smoking and their family residence and students residence ($P < 0.001$). A total of 390 (20%) students were smokers; 310 boys (29%) and 80 girls (11%) ($P < 0.001$).

Among the 390 smokers, 96% had more than 1 other family members who also smoked ($P < 0.001$).

Of the smokers, 122 (31%) lived with both their parents ($P < 0.0001$). Thus, significantly more smokers lived with a single parent (due to the death of a parent or se-

paration) ($P < 0.001$). **Table 2** shows the Distribution of the reasons for smoking.

The most important predictive factors for smoking were: having a family member who smokes, highest family income, occupation, level education of father and mother, education degree and status married.

4. DISCUSSION

In this research, the prevalence of tobacco smoking in our students (20%) was lower than rates reported in a previous study of students in Iran. Another study of university students of Kerman and Tehran during 2001-2005 showed that 22.7% and 22.1% were smokers. In the GYTS study conducted in 1999 among the youth of 13 countries, occasional smoking was reported by between 10% - 33% of young people.

However, in the Iranian national health survey performed from 1991-99, the prevalence of cigarette smoking had declined from 12.5% to 14.3% [10].

In our research the prevalence of daily cigarette smoking among this group of 20 - 25 year-olds was greater in boys than girls (29% versus 11%). This finding shows that the risk of trying cigarette smoking is similar in boys and girls, but boys in this age group are more likely to

Table 1. Distribution of the characteristics of the smoker and non smoker groups.

Variable	Smoker (n = 390)		Nonsmoker (n = 1410)		Statistics
	No.	%	No.	%	
Age group					
<20	60	16	157	11	$X^2 = 28.2$; $df = 4$; $P < 0.001$
20 - 25	280	72	983	70	
25 - 30	38	9	223	16	
30+	12	3	46	3	
Degree					
Associate	49	12.6	208	15	$X^2 = 13.1$; $df = 3$; $P < 0.001$
BA	310	79.7	1110	79	
MA	16	4.1	76	5.5	
PhD	14	3.6	16	1	
Family residence					
Urban	354	91	1324	94	$X^2 = 4.1$; $df = 1$; $P < 0.001$
Rural	35	9	86	6	
Students residence					
For famill	122	31	523	37	$X^2 = 88.01$; $df = 3$; $P < 0.001$
Renting a home-alone	194	50	381	27	
Hostel	74	19	506	36	

Continued**Family member smoking**

Father					
Yes	206	53	365	26	$X^2 = 103.11; df = 1; P < 0.001$
No	183	47	1045	74	
Brother					
Yes	115	29	253	18	$X^2 = 24.25; df = 1; P < 0.001$
No	275	71	1157	82	
Sister					
Yes	28	7	40	3	$X^2 = 15.90; df = 1; P < 0.001$
No	362	93	1370	97	
Mother					
Yes	27	7	19	2	$X^2 = 38.3; df = 1; P < 0.001$
No	362	93	1391	98	

Parents Life

Father and mother are alive	324	83	1162	82	$X^2 = 14.65; df = 4; P < 0.001$
Father and mother are separate	18	5	43	3	
Father is dead	18	5	135	10	
Mother is dead	21	6	48	3	
Both is dead	8	2	22	2	
Status married					
Married	53	14	223	16	$X^2 = 1.12; df = 1; P < 0.001$
Un married	336	86	1187	84	
Family number					
3<=	47	12	190	14	$X^2 = 0.74; df = 2; P < 0.001$
3 - 6	274	70	963	68	
6>	68	18	257	18	
Education of Father and mother					
illiterate	19	5	47	3	$X^2 = 24.12; df = 5; P < 0.001$
Education elementary	50	13	267	19	
Diploma	191	49	746	53	
BA	10	2	43	3	
MA and Phd	116	30	270	19	
Occupation					
Employed	155	40	410	29	$X^2 = 31.3; df = 2; P < 0.001$
Un Employed	235	60	1000	71	
Family income					
<\$200	41	10	98	7	$X^2 = 23.05; df = 2; P < 0.001$
\$200 - \$400	77	20	446	32	
>\$400	271	70	866	61	

Table 2. Distribution of the reasons for smoking.

Reasons for smoking	N	%	Statistics
Entertainment	174	44	X ² = 75.82; df = 5; P < 0.001
Friend	95	24	
Stress	68	17	
All	53	15	

become dependent on smoking. Higher rates of smoking among adult males compared with females has been seen in studies in Poland (26.4% versus 41.2%) [11] and in other Mediterranean countries, North Africa and the Middle East (60% versus 20%) [14]. In another study of the university students in Turkey, the prevalence of occasional smoking in boys and girls were 46% and 24% respectively [15,16]. Friends' behaviour and attitudes have also been shown in a large number of studies to be a particularly powerful force in shaping behaviour [17-19].

There was a significant statistical relationship between cigarette smoking and the lifestyle of the students. living with both parents or a single parent. We can hypothesize that living in a supportive and friendly family environment is a significant factor in preventing smoking in youth. Smoking by parents and brother and sister seems to be important in the initiation as well as the continuation of smoking. Bauman *et al.* found that student whose parents smoked were almost twice as likely to smoke as those whose parents had never smoked [20]. Kandel *et al.* found that both maternal smoking and the quality of parent-child interaction influenced the current smoking status among adolescents [21]. These findings are consistent with this study as current smokers had twice the risk when relatives, especially family, were smokers. We also observed that more students who had tried smoking had family members who also smoked compared with those that never smoked. This suggests that imitation plays an important role in the initiation of smoking in youth [16].

Our results show that the prevalence of smoking varied across students at different university, which is consistent with other studies in Iran [5].

These findings were confirmed in the regression analysis, as the significant predictive factors for smoking were presence of more than 1 smoker among the family members, having a brother or sister that smokes and living with a single parent. Therefore, it can be concluded that family environment is an important factor influencing the smoking behaviour of youth.

5. CONCLUSION

In summary, the overall reported prevalence of daily cigarette smoking university students in Shahroud (20%)

is not especially high compared with figures reported from other countries. However, due to the large number of daily smokers who will become addicted to cigarettes in the future and because of the limited health education and prevention programmes addressing smoking in the Islamic Republic of Iran, this figure is concerning. Targeted preventive and educational interventions, for example through the mass media, are needed.

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