DOI: 10.5455/msm.2015.27.176-179
Received: 22 March 2015; Accepted: 05 June 2015
Published online: 08/06/2015 Published print:06/2015

ORIGINAL PAPER Mater Sociomed. 2015 Jun; 27(3): 176-179

Tobacco Smoking Habits Among First Year Medical Students, University of Prishtina, Kosovo: Cross-sectional Study

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ABSTRACT

Introduction: Tobacco smoking remains the leading causes of preventable morbidity and mortality in the world, requiring intensified national and international public health response. World Health Organization (WHO) has urged health professional organizations to encourage and support their members to be models for not using tobacco products and promote tobacco-free culture. Healthcare students are the future authority of the health society, they are in a position to play a vital role and have impact on social norms related to smoking. **Aim:** To determine the prevalence of tobacco smoking among healthcare students of Medical Faculty, University of Prishtina in Kosovo, so that recommendations can be made for its cessation among healthcare providers and thereafter the community. **Materials and methods**: Descriptive cross-sectional study was conducted using self-administrated questionnaire prepared for this purpose. A total of 284 first year healthcare students of Medical Faculty, University of Prishtina in Kosovo were enrolled in the study. The data were analyzed using SPSS 22. **Results**: All respondents completed the questionnaire, giving a response rate of 100% (general medicine=180, dentistry = 104). The prevalence of students who have ever smoked was 53.2%. However, only 8.9% (9.1% M vs. 8.7% F) of the general medicine students and 5.8% (4.8% M vs. 6.5% F) of dentistry students declared that smoke tobacco every day. Overall, the research shows that the prevalence of occasional smokers among medical students in Kosova is quite high.

Key words: Smoking, healthcare students, Kosovo

1. INTRODUCTION

Tobacco smoking remains the leading causes of preventable morbidity and mortality in the world (1, 2), requiring intensified national and international public health response. According to estimations of the World Health Organization (WHO), approximately one person dies every six seconds due to tobacco, accounting for one in 10 adults (3). Similarly,WHO, indicates that there are at least a billion smokers in the world and nearly 80% of them live in low-and middle-incoming countries (3). Studies have shown that one of the strategies to reduce the number of smoking related morbidity and mortality is to encourage the involvement of healthcare providers and healthcare institution in tobacco-use prevention and cessation counseling (4, 5). However, health care providers who smoke send ambiguous message to patients whom they have encouraged to cease smoking (4, 6) or are less likely to provide patients with antismoking advice (7, 8). WHO has urged health professional organizations to encourage and support their members to be models for not using tobacco products and promote tobacco-free culture (9). As healthcare students are the future authority of the health society, they are in a position to play a vital role and have impact on social norms related to smoking. However, many international studies indicate that a high percentage of healthcare students are occasional smokers. Among smokers, percentage of occasional smokers tends to increase with education, showing the potential effect of education (5). Therefore, there is a need for improvement of knowledge about smoking among healthcare students in order to enhance the progress in the treatment of smokers (10). In countries with high prevalence of smoking, it is advisable to expose healthcare students to tobacco control policies and educate them for anti-tobacco programs during the studies in order to lead the society in that direction (8,11). For these reasons, our objective is to determine the prevalence of tobacco smoking among healthcare students in Kosovo, so

that recommendations can be made for its cessation among healthcare providers and thereafter the community.

2. MATERIALS AND METHODS

This cross-sectional study was a medical-school based survey conducted at Medical Faculty, University "Hasan Prishtina" in Prishtina, Kosovo with first year students. A total of 284 healthcare students were enrolled in the study, 184 distributed in medical school and 104 in dentistry school. The objectives of the study were explained to the participating students after which they gave their informed consent. The information on individual students was kept confidential and anonymous in order to obtain as frank answers as possible. Data were collected through a self-administrated questionnaire constructed by investigators for the study purpose. All the participants were asked about their gender, type of healthcare study and smoking status. Smoking status was classified in five categories: don't smoke, smoke quite temporarily, smoke less than once a week, smoke every week but not every day and smoke every day. Data were collected by trained data collector and checked for accuracy and completeness. Data were entered and analyzed using Statistical package for social science SPSS 22 in a personal computer. Percentages were calculated and univariate analysis was carried out using χ^2 testing for categorical variables, with a p value of <0.05 being taken as the threshold for statistical significance. Confounders were managed through randomized selection of subjects. Cases with missing data were excluded from the analysis.

3. RESULTS

All respondents completed questionnaire, giving a response rate of 100%. The high response rate minimized the risk of bias due to the population not being representative of the target population. Table 1 shows characteristics of healthcare students distribution by gender and type of healthcare study. The majority of 284 first year healthcare students included studied general medicine (n=180) compared to those who studies dentistry (104). More than half of the participants were female (n=154, 54,2%), distribution of females among dentistry students was 59.6% and 51.1% among medical students. However, there was no statistically significance (X2-test = 1.593, P = 0,207 i.e. P> 0:05).

Gender	General Medicine		Dentistry		Total	
	N	%	N	%	N	%
M	88	48.9	42	40.4	130	45.8
F	92	51.1	62	59.6	154	54.2
Total	180	100.0	104	100.0	284	100.0
X^2-test	X^2=1.593, P=0.207					

Table 1. Distribution of the first year healthcare students (n=284) according to type of healthcare study and gender

Table 2, 3, 4, 5 and 6 present the information about the prevalence of smoking. Table 2 presents the prevalence of smokers among healthcare students on the basis of the type of healthcare study. Out of 284 healthcare students included in the study, 53.2% of responded positively to the question: Have you ever smoked tobacco?. Prevalence was higher among general medicine students (55.6%) compared to dentistry students (50.0%), however, this difference has no statistically significance (X2 = 0610, P = 0,435) (Table 2). When gender was compared between the two groups of healthcare students, the only characteristic found statistically significant (X^2=6.67, P=0.01) was the higher prevalence of smokers among male students (65.9%) compared to females (45.7%) in general medicine branch (Table 3). Whereas, the difference was not statistically significant (X2 = 0:04, P = 0,842) between dentistry students, the prevalence of male smokers was 52.4% compared to 48.4% of females (Table 4).

Have you ever smoked tobacco?	General Medicine		Dentistry		Total	
	N	%	N	%	N	%
Yes	100	55.6	52	50.0	152	53.5
No	80	44.4	52	50.0	132	46.5
Total	180	100.0	104	100.0	284	100.0
X^2-test	X^2=0.610, P=0.435					

Table 2. The responses of healthcare students according to type of healthcare study in the question: Have you ever smoked tobacco?

Have you ever smoked tobacco?	M		F		Total	
	N	%	N	%	N	%
Yes	58	65.9	42	45.7	100	55.6
No	30	34.1	50	54.3	80	44.4
Total	88	100.0	92	100.0	180	100.0
X^2-test	X^2=6.67, P=0.01					

Table 3. The responses of general medicine students according to gender in the question: Have you ever smoked tobacco?

Have you ever smoked tobacco?	M		F		Total	
	N	%	N	%	N	%
Yes	22	52.4	30	48.4	52	50.0
No	20	47.6	32	51.6	52	50.0
Total	42	100.0	62	100.0	104	100.0
X^2-test	X^2=0.04, P=0.842					

Table 4. The responses of dentistry students according to gender in the question: Have you ever smoked tobacco?

Of the respondents, only 8.9% of the general medicine students declared that smoke tobacco every day (9.1% M vs. 8.7% F), while 44.4% reported that smoke tobacco less than once a week (55.7% M vs. 33.7% F) (Table 5). While, only 5.8% of dentistry students declared that smoke tobacco every day (4.8% M vs. 6.5% F) and 44.2% reported that smoke tobacco less than once a week (47.6% M vs. 41.9% F) (Table 6).

How often do you smoke tobacco?	M		F		Total	
	N	%	N	%	N	%
I don't smoke	30	34.1	50	54.3	80	44.4
I quite temporarily	2	2.3	-	-	2	1.1
Less than once a week	49	55.7	31	33.7	80	44.4
Every week, not every day	1	1.1	1	1.1	2	1.1
Every day	8	9.1	8	8.7	16	8.9
Total	88	100.0	92	100.0	180	100.0

Table 5. The responses of medical students according to gender in the question: How often do you smoke tobacco?

4. DISCUSSION

In Kosovo, we have no data about the smoking rate in the general population. Based on the 2012 Eurobarometer Report 'Attitudes of Europeans Towards Tobacco', the prevalence of smoking in the European population aged ≥ 15 years is 28%, the maximum prevalence is observed in Greece (40.0%) and

How often do you smoke tobbacco?	M		F		Total	
	N	%	N	%	N	%
I don't smoke	20	47.6	32	51.6	52	50.0
I quite temporarily	-	-	-	-	-	-
Less than once a week	20	47.6	26	41.9	46	44.2
Every week, not every day	-	-	-	-	-	-
Every day	2	4.8	4	6.5	6	5.8
Total	42	100.0	62	100.0	104	100.0

Table 6. The responses of dentistry students according to gender in the question: How often do you smoke tobbacco?

minimum in Sweden (13.0%) (12). Findings from a recently published review, indicate that smoking prevalence among healthcare students in different countries mirror those of society in which they live (5).

The result of this study highlight the high prevalence of tobacco smoking among healthcare students in University of Prishtina, raising the awareness of public health authorities in Kosovo about this problem.

The results of our study indicate that prevalence of healthcare students who have ever smoked (53.2%) is higher compared to other European countries, beside Croatia where more than two thirds (67.4%) of healthcare students declared that had occasionally smoked tobacco (13). The prevalence of tobacco smoking among healthcare providers in different European countries was also observed to be high. According to a study published in 2010, the prevalence of smoking among health providers in Italy is 44%, two times higher compared to the entire adult population, with the highest prevalence among nurses (48.2%), doctors (33.9%), healthcare students (35%) and post-graduate students (52.9%) (12,14). A study, performed among 12 medical schools in four European countries found that the overall prevalence of smoking among medical students was 29.3%, with the ranking percentage of 28% in Germany to 31.3% in Italy (15).

While in Croatia, more than one-third (36.6%) of students were smoker at time, in our research most of the students were declared to be occasional smokers. Only 8.9% (9.1% M vs. 8.7% F) of the general medicine students and 5.8% (4.8% M vs. 6.5% F) of dentistry students declared that smoke tobacco every day.

The results from our survey show that the percentage of smoking is higher among males, general medicine (65.9% M vs 45.7% F) and dentistry (52.4% M vs 48.4% F), showing consistence with the general patterns of tobacco smoking between developing and developed countries. Significantly, more male (40-60%) but fewer female (2-10%) smoke in developing countries compared with 25-30% of both male and female in developed countries (7, 16). The prevalence of smoking among healthcare students in Turkey was 19.0%, the prevalence was much higher among male students (males 28.3%, females 9.8%) and the percentage of smoking increased from 15.6% among first year students to 23.4% among sixth year students (17). In Casablanca, the prevalence of smoking among healthcare students was 7.9%, again the prevalence was much higher among male students (16%) compared to female students (3%) (18).

In our country, yet, no studies have addressed smoking habits, knowledge about smoking and attitudes towards smoking cessation counseling among healthcare students. Results from the Global Health Professions Student Survey (GHPSS) found that more than two-thirds of healthcare students believe that health professionals are role models for patients, however, only 16.5% of them reported to had smoking cessation trainings at medical school (15). In Italy, where the prevalence of healthcare students who smoke tobacco is among highest, the study by Grassi et al. (19) demonstrated that medical students have limited knowledge about tobacco dependence, tobacco treatment and the critical role of the physicians in promoting smoking cessation. The literature encourages the inclusion of information on tobacco control and counseling in the curricula of medical schools (8), as healthcare providers who receive formal smoking cessation training are more likely to intervene with patients who use tobacco than those who are not formally trained (20).

We must knowledge that this study has several limitations. First, it has a cross-sectional design; thus, the causes and effect could not be examined. Second, it included only first year students and as previously mentioned, smoking rate among healthcare students tends to increase between the year of entry and the final year. Third, it included only general medicine and dentistry students; hence, generalization of the findings is limited to other groups of healthcare students. Finally, in self-administered questionnaire, respondents may not always provided accurate responses (21).

5. CONCLUSION

This is the first study, to our knowledge, which has investigated tobacco smoking prevalence among healthcare students in Kosovo. Our findings indicate significant tobacco use among medical and dentistry students in Kosovo. Results, raise the need for urgent and comprehensive public health initiatives among healthcare students to reduce this harmful habit and to assist their patients in order to interrupt smoking. Further qualitative research is needed to understand knowledge about smoking and attitudes towards smoking cessation counseling among healthcare students. In their important future role as exemplars, education represents probably the most critical issue in smoking cessation for both healthcare students and the general public alike. Considering the fact that smoking rate among medical students in other countries appears to increase by year of study, it is essential that tobacco-specific education should become mandatory in future years.

CONFLICT OF INTEREST: NONE DECLARED.

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