RESEARCH ARTICLE

Smoking Habits among Greek University Students after the Financial Crisis

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Abstract

Background: University students worldwide seem to have increased rates of smoking, alcohol abuse, binge drinking episodes and harmful consumption trends, raising a serious public health issue. The aim of the present study was to investigate university students' smoking habits and exposure to secondary smoke amid a financial crisis. **Methods:** The present descriptive, correlational analysis was conducted at the University of Peloponnese. **Results:** The average age of the sample (n=203) was 24.9 years (±7.6 years) with 36.0% of the participants (n=73) being postgraduate students. Some 51.2% (n=104) of the participants said they didn't smoke and 46.3% (n=94, p=0.003) reported no secondary smoke exposure during the past week at home. The majority of the remainder initiated smoking at age 16-17 (48.5%, n=48), and 64.6% (n=42) said the financial crisis did not lead them to change their smoking habits. **Conclusions:** The majority of students support smoking ban laws in enclosed public spaces, but also their replies highlighted poor implementation on behalf of the state and the authorities. The financial crisis did not appear to have affected student smoking habits.

Keywords: University students- smoking habits- passive smoking- financial crisis

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Introduction

According to World Health Organization (WHO) data there are about 1.25 billion smokers worldwide, while six million people die each year because of smoking - related causes. The number of tobacco users makes up for one third of Earth's population aged 15 and over. The majority of tobacco users, and smoking-related deaths, is more common in developing countries; far more males than females use tobacco (Goyal, 2016). According to WHO projections, by 2030 the smoking-related death toll will reach 8 million cases, while if the current tendencies stay unchanged, 250 million of people who are now in their childhood, will die of smoking-related diseases (WHO, 2011).

The prevalence of smoking has increased, which has been correlated to the financial recession existing in the country (Algorinees et al., 2016). The financial crisis can lead to high unemployment rates, which can also be correlated to higher smoking prevalence (Patelarou et al., 2011; Kourakos et al., 2016). One retrospective study of Patelarou (2011), showed that a financial crisis can lead to higher smoking rates in unemployed persons. In times of financial recession, the government's social policy is considered a stabilizing factor. Yet the current social policy cuts plus the overall GDP shrinking can have a negative impact on the population health. In Greece, which has been under financial recession since 2010, a 2014 OECD report found that the healthcare budget had been slashed by 25% compared to the 2008 expenditures. Greece has also the highest percentage of adult smokers within the OECD, reaching 39% in 2010. The average OECD rate is up to 20.7%, while in Sweden, Norway and Iceland the respective rate is below 16% (OECD, 2014).

University students worldwide seem to have increased rates of smoking, alcohol abuse, binge drinking episodes and harmful consumption trends. The students' alarming smoking habits are considered a serious public health issue (Alshammari et al., 2015). Smoking has been increasing in the last decade among university students, up to 29% in the USA (ages 18 to 24), as well as 22.9% and 19.8% in central and eastern Europe respectively (Von Ah et al., 2005) . Also the students do not seem to care about smoking-related health risks despite being fully informed about them. Smoking prevalence is higher in male students compared to female students. More specifically, in a study that took place in Syria, 20.8% of the 583 participants said they used to smoke, 26.1% of male students and 9.5% of female students (Al-Kubaisy et al., 2012; Odukoya et al., 2016). During their college years, students are also exposed to secondary smoke both within college premises and in entertainment and eating establishments,

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while being exposed to secondhand smoke has increased by 49.6% (Inandi et al., 2013; Al-Zalabani et al., 2015).

Aim

The aim of the present study is to investigate university students' smoking habits and exposure to secondary smoke amid a financial crisis.

Materials and Methods

Methods

Study planning, Instrument

The present study is a descriptive, correlational synchronic analysis. It took place at the Department of Social and Educational Policy of the University of Peloponnese and both undergraduate and graduate students took part. In total, questionnaires were sent to 225 students, and 203 of them were returned (response rate 90.2%).

For this study, a structured, self-report questionnaire that included 32 items was created. This particular questionnaire included four items drawn from the Global Health Professional Student's Survey (CDC, 2008). It also included the Fagerström nicotine dependence test (Fagerström, 1978; Heatherton et al., 1991). The Fagerström scale is a widespread and reliable way of assessing nicotine dependence and has been used both in the Greek and international literature with great validity and reliability (Pomerleau et al., 1994). The original test (Fagerström, 1978) comprised eight items (Fagerström Tolerance Questionnaire -FTQ), plus 6 items in the revised 1991 edition by Heatherton et al (Fagerström test for nicotine dependence- FTND). Scores of 7 and over show strong nicotine dependence.

The Global Health Professional Student's Survey (GHPSS) includes 42 questions and has been used in WHO and Centers for Disease Control and Prevention (CDC) surveys about smoking habits of students. In our study, 4 items were based on GHPSS items, two regarding the students' smoking habits and two about exposure to secondhand smoke (WHO, 2011).

More specifically, the questionnaire we used here begins with the demographics and 7 questions regarding how the participants deal with the ongoing financial crisis. The next 6 items describe the participants' relation with smoking (age of initiation, reason, if they have ever consulted a specialist in order to quit, etc). Also this instrument includes the Fagerström scale which comprises 8 items and was completed by smokers only. Finally, there are 2 questions about recent exposure to secondary smoke and 6 items regarding their views on smoking in enclosed public areas, if the laws about smoking are being respected in Greece, and about anti-smoking campaigns organized by the state.

The final version of the questionnaire was tested for face validity by an expert group consisting of the three members of the Board, a Greek and English language specialist and a biostatistician. In order to find out if the draft was coherent and clear, it was given to 5 students to complete. This preliminary testing and the specialists' input lead to the questionnaire's overall completion.

Ethics

The research protocol was approved by the general assembly of the Department of Social and Educational policy of the University of Peloponnese. The participants' anonymity was observed after they had signed the informed consent forms.

Statistical analysis

The statistical software SPSS 19.0 was used to analyze the data. Significance levels were bilateral and set at 0.05. Absolute (N) and relative (%) frequencies were used for the description of qualitative variables. Pearson's $\chi 2$ test was used for the comparison of the proportions. Student's t-test, or the non-parametric Mann-Whitney test, was used for comparing quantitative variables among two groups. The non-parametric Kruskal-Wallis test was used for the comparison of quantitative variables among more than two groups. For controlling type 1 errors, because of the multiple comparisons, the Bonferroni correction was used, according to which significance level was 0.05/k (k= number of comparisons). Spearman's coefficient (rho) was used to test the correlation between two quantitative variables.

Results

The sample comprised 203 undergraduate and postgraduate students. More specifically, 82.3% of them (n=167) were females and 17.7% (n=36) were males. The average age was 24.9 years old (±7.6 years); 36.0% of the participants (n=73) were postgraduate students (Table 1). 47.8% (n=97) of the participants said their parents did not smoke, 29.6% (n=60) said one parent used to smoke and the remaining 22.7% (n=46) said both parents were smokers.

Regarding to how the students and their families deal with the financial crisis, the main way seems to be cutting down on expenses that are not absolutely necessary [(89.2% (n=181)] (Table 2).

About their smoking habits, 51.2% (n=104) of the participants said they didn't smoke. 32% of the students (n=65) identified themselves as active smokers, 16.7% (n=34) of them as ex-smokers, while no statistical difference was found regarding gender (p=0.078), age (p=0.340), years of study (p=0.619), or existence of parents that were smokers (p=0.149). The majority initiated smoking at age 16-17 (48.5%, n=48). Most of the participants who smoked, 64.6% (n=42), said the financial crisis did not lead them to change their smoking habits. The remaining 35.4% (n=23) confirmed some changes, namely cutting down on smoking because of the cost. More specifically, 60.9% of them (14/23) had reduced smoking because of the cost, while 39.1% of them (n=9) had increased smoking mainly because of stress. Also, 55.6% (55/143) of students who were smoking or had been smokers in the past initiated smoking because of personal problems, while 15.2% of them (n=15) because of peer pressure. When choosing to offer some other reason, the majority (6.9%, n=14) said they started smoking out of curiosity. Finally, only 15.2% (15/65) of active or ex-smokers said they had received any help or advice to

Table 1. Demographics

	N
Sex	
Female	167
Male	36
Age: Mean±SD	24,9±7,6
Smoker parents	
No	97
One	60
Both	46
Year of study	
First	34
Second	24
Third	35
Fourth	24
Graduation pending	13
Postgraduate	73
Parents' education level	
Elementary/ Junior High	19
High school	84
Technological Institute	23
University	61
Postgraduate/Doctoral	16
Parents profession	
Public servant	58
Public servant, freelancer	14
Public servant, privately employed	21
Public servant, Retired	1
Self-employed worker	45
Freelancer, privately employed	7
Private sector worker	26
Private sector worker, retired	1
Unemployed	7
Unemployed, farmer	1
Retired	18
Farmer	4
Do you work while studying?	
No	100
Yes	103
If yes, please specify	
Public servant	39
Freelancer	13
Private sector worker/employee	51
Volunteering	1

quit smoking.

The participants who were smokers (65/203) completed a questionnaire in order to assess their dependence on nicotine (Fagerström test). Table 3 shows in detail their nicotine dependence levels, as assessed by the authors. The participants' demographics did not seem to play a significant role in nicotine dependence levels,

Table 2. Ways to Deal with the Financial Crisis

	N	%
Spending part or all of the savings	120	59.6
Selling movable and/or immovable assets	19	9.4
Filing for a bank loan	17	8.4
Borrowing money from relatives and acquaintances	25	12.3
Gambling	18	8.9
Cutting down on the basics (products and goods necessary for living)	65	32.0
Cutting down on unnecessary, not vitally important, things	181	89.2

for instance sex (p=0.919), age (p=0.113, r=0.20), year of study (p=0.399 Kruskal-Wallis test) and the existence of parents who smoked (p=0.459 Kruskal-Wallis test).

46.3% of the students (n=94, p=0.003) reported no secondary smoke exposure during past week at home, while 27.6% of them (n=56) reported secondary smoke exposure on a daily basis. Also, 23.2% of the students (n=47) reported secondary exposure for one or two days during past week at a place they visited, and 34.0% of them (n=69) reported secondary smoke exposure on a daily basis. Active smokers had been also exposed to secondary smoke more frequently either at home or elsewhere, compared to non-smokers or ex-smokers (p<0.001, Mann-Whitney test).

The results of our study didn't show any correlation between financial crisis and smoking increase of the students.

Most of the students [90.1% (n=183)] think that prohibiting smoking in all enclosed public spaces is useful, with no difference between active, ex, or non-smokers (p=0.069). Most of the students [88.2% (n=179)] think that the Authorities have not taken all necessary measures regarding smoking bans, and that the main problems are the insufficient checks regarding smoking in public spaces (27.6%), and also non-abidance to the law (20.7%), or poor implementation and enforcement of the law (14.3%). The participants' beliefs regarding smoking differ significantly among active, ex and non-smokers (p<0.001, Fisher's exact test). By and large, active smokers thought that smoking is a personal choice and right (49.2%,n=32), in contrast to non-smokers (21,7%, n=30). Also, most active smokers did not seem to acknowledge (16.9%, n=11) it as an addictive habit that can have negative effects on the health of general population, also in contrast to non-smokers or ex-smokers.

Moreover, 80.8% of the students (n=164) felt that anti-smoking campaigns are for the most part poorly

Table 3. Level of Nicotine Dependence (Fagerström Scale, N=65)

		N	%
Level of dependece (Fagerström scale)	No or slight dependence	48	73,8
	Average dependence	9	13.8
	Strong dependence	3	4.6
	Very strong dependence	5	7.7

Table 4. The Participants' Beliefs about Smoking According to Their Tobacco-Related Condition (Active, Ex- or Non-Smokers)

Smoking				
Never/ Used to			Yes	
	N	%	N	%
Do you think that smoking bans in all public enclosed areas are useful?				
No	10	7.2	10	15.4
Yes	128	92.8	55	84.6
According to you, smoking is…				
A personal choice and right	30	21.7	32	49.2
A negative habit with negative effects on the smoker's life	46	33.3	20	30.8
An addictive habit with negative effects on the health of the general population	62	44.9	11	16.9
A habit that makes someone more popular or likeable	0	0.0	2	3.1
Smoking ban is based on the Act 3868/2010. Do you think that the authorities have taken all necessary measures to properly enforce it?				
No	123	89.1	56	86.2
Yes	15	10.9	9	13.8
Do you think that warnings printed on cigarette packs can help someone quit smoking?				
No	125	90.6	62	95.4
Yes	13	9.4	3	4.6
Do you think that state-sponsored anti-smoking campaigns are properly organized and implemented?				
No	115	83.3	49	75.4
Yes	23	16.7	16	24.6
Would you consider taking part in university activities for raising awareness about tobacco and alcohol?				
No	25	18.1	13	20.0
Yes	113	81.9	52	80.0

designed and insufficiently implemented by the state authorities. When asked to give a reason for their negative answer, 10.8% of the participants (N=22) said that the design and creation of such campaigns by the Greek state was flawed. The participants also pointed out that those campaigns were usually poorly promoted and designed, and that there was a lack of anti-smoking campaigns aiming specifically at younger people. All the students' beliefs regarding smoking can be seen in Table 4.

Discussion

According to recent WHO data, both tobacco and alcohol consumption worldwide are on the rise, especially among adolescents, despite the campaigns launched by both international organizations and local authorities. The aim of the present study is to investigate smoking habits and beliefs of undergraduate and postgraduate students of the Department of Social and Education Policy of the University of Peloponnese, regarding both active smoking and secondary smoke exposure.

The sample comprised 203 undergraduate and postgraduate students of the Department of Social and Education Policy of the University of Peloponnese. The majority were females (82.3%), postgraduates (36.0%) and with an average age of 24.9 (±7.6) years. Almost half of the participants (50.7%) were working and 48.5% of them worked in the private sector.

The demographics of our sample resemble those of other studies. Thus, in another Greek study from Diomidous et al. (2007) with a sample of 136 nursing students at the University of Athens, the majority were also females (65.4%) and the postgraduates were more than the undergraduates (53.7% vs 46.3%), mainly because the researcher had had easier access to postgraduate students. In another study that took place at the Medical School of the Democritus University of Thrace, the majority of the participants were also females (Pantsidis et al., 2012), although in that particular study no postgraduate students were included. Also, in several international studies the sample consists mainly of undergraduate students (Rabanales Sotos et al., 2015; Oliver et al., 2014; Dania et al., 2015). The fact that females outnumber their male colleagues is connected to the type of their studies, since females usually make up the majority in healthcare sciences and humanities, which is the case for the present study, as well.

In our study, the prevalence of active smokers compared to all of the participants was 32%. This percentage is more or less similar to those found by other relevant Greek studies (Diomidous et al., 2007; Mammas et al., 2003; Pantsidis et al., 2014; Konstantinidis et al., 2014) . In a study that investigated smoking habits and alcohol consumption within freshmen (first year students), the active smokers were 32.4% of the sample (Konstantinidis et al., 2014), while another Greek study of Diomidous et al., (2007) found that 36.8% of the students smoked systematically. The smoking habits of medical students have been also investigated and it was found that 24% of the students were smokers. This study that compared smoking prevalence among Greek and Canadian students, showed a clear gap between those two groups, since 24% of the Greek students used to smoke whereas only 3.3% of their Canadian counterparts did (Pantsidis et al., 2014).

Although both Greek and international studies have shown that male smokers outnumber female smokers, in the present study female smokers were the majority compared to males. In an international study, out of 583 participants only 20.8% were smokers (26,1% men and 9.5% women) (Al-Kubaisy et al., 2012). Similar findings

were found by several Greek studies where male smokers outnumbered females (Diomidous et al., 2007; Pantsidis et al., 2014; Konstantinidis et al., 2014). Perhaps this difference is a particularity of our sample, or it could reflect that smoking is increasing among adolescent females.

In the present study the majority of the participants (48.5%) started smoking between the ages 16-17. Another Greek study of Diomidous et al., (2007), found the same initiation age for 33.3% of the participants, compared to 25.3% who had started (or first tried) smoking between the ages 11-15. An international study with a similar sample found that smoking initiation was usually during puberty (18 years of age) (Fernández et al., 2015). A slightly older study in pharmacology students had found similar findings with the initiation age between the ages of 16 and 20 (Aina et al., 2009). This has also been pointed out in a report by WHO where adolescence has been shown to be the most common smoking initiation period (WHO, 2014). All of the above suggest that interventions and educational campaigns are needed in order for adolescents to fully realize the consequences of smoking and adopt healthier attitudes and behaviors.

Regarding seeking or getting help to quit smoking, only 15.2% of active or ex-smokers included in our sample said they had received advice or help to quit smoking. This percentage is considered low, but is higher compared to that found by Diomidous et al., (2007), where only 2% of the smokers had sought help in order to quit smoking. Those percentages highlight the need for targeted interventions for quitting smoking suitable for secondary and tertiary education students. This need for help in quitting smoking has also been underlined by an Indian study among 219 dentistry students Fotedar et al., 2013).

In our study, 36% of the participants acknowledged that smoking is an addictive habit that can have a negative impact on the general health. Similarly, 32.5% said smoking was a bad habit with negative effects on the smoker's life, yet 30.5% hold that smoking is a personal choice and right, while only 1% thought that smoking can make someone more likeable or popular. Another important finding was that more than half of the participants said that they started smoking because of personal problems, although that finding was not duplicated by Diomidous et al., (2007) study.

Another important finding of our study was that there were low nicotine dependence levels. More specifically, 73.8% of the smokers scored low on the Fagerström test, and only 7.7% of them scored very high. Other international studies that employed the same test have also shown low nicotine dependence levels. For instance, in one study only 6% of the participants scored enough to establish just a suspicion of nicotine dependence (Aina et al., 2009). It should be noted that the weaker the nicotine dependence, the easier to quit smoking altogether. Consequently, the smokers that participated in our study have a good prognosis in case they decide to quit smoking. The decision to quit smoking both in the community and the department should be encouraged and promoted by the state.

Secondary smoke exposure in Greece, as analyzed in the general section, is the highest among EU members and among the highest worldwide. Studies have found that the exposure of students to secondhand smoke is increasing worldwide (Almutairi, 2014). In a recent relevant study of Inandi et al., (2013) it was found that 49.6% of the students were exposed to secondhand smoke. According to the same study, the students are receptive to measures against smoking within the university premises. Also, a study that took place in Saudi Arabia, found that 57.7% of 805 medical students were exposed to secondary smoke in enclosed public spaces. According to the same study, the students would support a comprehensive policy regarding reducing smoking in enclosed public spaces (Almutairi, 2014). Nevertheless, in countries with low rates of secondary smoke exposure, like Australia, a relevant study has found that students support strongly smoking reduction policies and the establishment of non-enclosed outdoor smoking-free areas, while the reasons of lack of non-compliance are been thoroughly investigated (Jancey et al., 2014) .

In the present study, 34.0% of the participants said they had been exposed to secondary smoke all seven days of the previous week at some place they had visited, while 27.6% had been exposed to secondary smoke at home. Nevertheless, a robust 46.3% of the participants reported no exposure to smoke during past week. It was also found that smokers were much more often exposed to secondary smoke, either at home or elsewhere, compared to non-smokers or ex-smokers, which highlights once again that in Greece smoking bans and restrictions are regularly ignored. The previously mentioned WHO report also found that smokers are more exposed to secondary smoke too (WHO, 2014).

Regarding the students' opinions about smoking, the majority (90.1%) agreed with smoking bans in enclosed public spaces, while 81.3% of them would like to take part in student awareness campaigns about smoking and alcohol. A relevant Greek study of Pantsidis et al., (2012), found that 88.6% of medical students find smoking bans in enclosed spaces useful. Several international studies have also shown that university students are by and large in favor of smoking-free policies (Borders et al., 2005; Marsh et al., 2014; Braverman et al., 2015). For instance, an online survey in students in New Zealand found that the majority of them were in favor of smoking-free policies, and the same result came from a study from Saudi Arabia where 89.6% of the students supported smoking-free policies as well (Almutairi, 2014; Marsh et al., 2014). Moreover, in a meta-analysis that comprised 18 studies from the US and one from the UK regarding smoking-free policies and smoke-free campuses, the majority of students (58.9%) supported such policies (Marsh et al., 2014). Additionally, in another online study that 5.691 students took part, 77% of them were positive regarding more smoking-free areas (Braverman et al., 2015).

University students in general agree with smoking bans in enclosed public spaces and support relevant policies. In the present study, the majority of the students (88.2%) don't think that the State has taken all necessary measures to implement and enforce smoking bans in enclosed public spaces, and also most of them (80.8%) that there are no

specialized campaigns or interventions against smoking. This finding suggests that there is an urgent need for measures that will result to smoke-free enclosed public spaces. In order for this to happen, widespread smoking ban checks are required, something also supported by the majority of our participants.

Study limitations

The present study has limitations that are worthy to be presented. More specifically, the study took place in one of the University of Peloponnese departments, in the city of Corinth, due to restricted time limits. The study could take place in the future in more university departments with more participants and, consequently, more reliable and valid results.

In conclusions, the prevalence of smoking in the students was 32%. The majority of the participants had no addiction to nicotine. Despite there are smoking ban laws in enclosed public spaces, the majority of the participants were exposed to secondary smoke in such spaces (34%). Regarding what actually is smoking, smokers and non- or ex-smokers took different approaches. Thus, smokers ex- smokers thought that smoking is one's personal choice and right, while smokers thought that smoking is an addictive habit with negative effects on the general health. The majority of the students supports smoking ban laws in enclosed public spaces, but also highlights poor implementation on behalf of the state and the authorities. In addition, the students think that campaigns and health education programs regarding smoking are poorly designed, weakly promoted and badly implemented by the authorities. Financial crisis didn't appear to affect in smoking habits.

Finally, the students would willingly take part in activities aiming at raising awareness for smoking-related issues.

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References

Aina BA, Onajole AT, Lawal BM, et al (2009). Promoting cessation and a tobacco free future: willingness of pharmacy students at the University of Lagos, Nigeria. *Tob Induc Dis*, **22**, 5-13.

Algorinees RM, Alreshidi IG, Alateeq MF, et al (2016). Prevalence of cigarette smoking usage among adolescent students in Nothern Saudi Arabia. *Asian Pac J Cancer Prev*, **17**, 3839-43.

Al-Kubaisy W, Abdullah N, Al-Nuaimy H, et al (2012). Epidemiological study on tobacco smoking among university students in Damascus. Syrian Arab Republic. *East Mediterr Health J*, **18**,723-7.

Almutairi K (2014). Prevalence of tobacco use and exposure to environmental tobacco smoke among saudi medical students in Riyadh, Saudi Arabia. *J Community Health*, **39**, 668-73.

Alshammari FD, Khalifa AM, Kosba AA, et al (2015). Assessment of perception of medical students in regard to links between tobacco or alcohol use and cancer. Asian Pac J Cancer Prev, **16**, 2697-700.

Al-Zalabani AH, Abdallah AR, Alqabshawi RI (2015). Intention to quit smoking among intermediate and secondary school students in Saudi Arabia. *Asian Pac J Cancer Prev*, **16** 6741-7.

Borders T, Xu K, Bacchi D, et al (2005). College campus smoking policies and programs and students' smoking behaviors. *BMC Public Health*, **7**, 5-74.

Braverman MT, Hoogesteger LA, Johnson JA(2015). Predictors of support among students, faculty and staff for a smoke-free university campus. *Prev Med*, **71**,114-20.

CDC (2008). Global tobacco surveillance system data (GTSSData). Global health professional student's survey-protocol. 2008. Available from: http://nccd.cdc.gov/ gtssdata/Ancillary/ Documentation.aspx?SUID=3&DOCT=1.

Dania MG, Ozoh OB, Bandele EO(2015) Smoking habits, awareness of risks, and attitude towards tobacco control policies among medical students in Lagos, Nigeria. *Ann Afr Med*, **14**,1-7.

Diomidous M, Galanis P, Mpakoula X, et al (2007). Evaluation of students' attitudes towards smoking and alcohol consumption. *Nosileftiki*, **46**, 523-8.

Fagerström KO (1978). Measuring degree of physical dependence to tobacco smoking with reference to individualization of treatment. *Addict Behav*, **3**, 235-410.

Fernández D, Ordás B, Álvarez MJ, et al (2015). Knowledge, attitudes and tobacco use among nursing and physiotherapy students. *Int Nurs Rev*, **62**, 303-11.

Fotedar S, Sogi GM, Fotedar V, et al (2013). Knowledge of, attitude towards, and prevalence of tobacco use among dental students in Himachal Pradesh State, India. *Oral Health Dent Manag*, **12**, 73-9.

Goyal G (2016). Knowledge, attitude and practice of chewing Gutka, Areca nut, Snuff and tobacco smoking among the young population in the Northern India population. *Asian Pac J Cancer Prev*, **17**, 4813-18.

Heatherton TF, Kozlowski LT, Frecker RC, et al (1991). The fagerström test for nicotine dependence: a revision of the fagerström tolerance questionnaire. *Br J Addict*, **86**, 119-1127.

Inandi T, Caman O, Aydin N, et al (2013). Global health professions student Ssurvey-Turkey: second-hand smoke exposure and opinions of medical students on anti-tobacco law. *Cent Eur J Public Health*, **21**, 134-9.

Jancey J, Bowser N, Burns S, et al (2014). No smoking here: examining reasons for noncompliance with a smoke-free policy in a large university. *Nicotine Tob Res*, **16**, 976-83.

Konstantinidis T, Skandalaki N, Kritsotakis G (2014). Smoking and alcohol consumption among undergraduate nursing students. *Nosileftiki*, **53**, 42-7.

Kourakos M, Kafkia T, Saridi M (2016). Greece: Economic crises and management. Hauppauge NY. United States of America: Nova Science Publishers 2016, pp 45-55.

Mammas I, Bertsias G, Linardakis M, et al (2003). Cigarette smoking, alcohol consumption, and serum lipid profile among medical students in Greece. *Eur J Public Health*, **13**, 278-82.

Marsh L, Robertson L, Cameron C (2014). Attitudes towards smoke free campus policies in New Zealand. *N Z Med J*, **127**, 87-98.

Odukoya OO, Dada MR, Olubodun T, etal (2016). Risk perception and correlates of tobacco use among young people outside of formal school settings in Lagos State, Nigeria. *Asian Pac J Cancer Prev*, **17**, 2833-9.

OECD (2014). Health statistics 2014. How does Greece compare? Briefing Note. 2014. Available from: http://www.oecd.org/els/health-systems/Briefing-Note-GREECE-2014.pdf.

Oliver W, McGuffey G, Westrick SC, et al (2014). Alcohol use behaviors among pharmacy students. *Am J Pharm Educ*, **78**, 30.

Pantsidis G, Papageorgiou D, Bouros D (2012). Smoking habits, attitudes and training among medical students of the Democritus University of Thrace. *Pneumon*, **25**, 198-207.

Pantsidis G, Papageorgiou D, Bouros D (2014). Comparing smoking habits and tobacco-related education between Canadian and Greek medical students. *Tob Induc Dis*, **12**, A5.

Patelarou A, Manidaki A, Mpalolakis A, et al (2011). The economical crisis and consequences to health. Suggestions. *Hellenic J Cardiol*, **4**, 53-61.

Pomerleau C, Carton S, Lutzke M, et al (1994). Reliability of the fagerstrom tolerance questionnaire and the fagerstrom tTest for nicotine dependence. *Addict Behav*, **19**, 33-9.

Rabanales Sotos J, López Gonzalez Á, Párraga Martínez I, et al (2015). Prevalence of hazardous drinking among nursing students. *J Adv Nurs*, **71**, 581-90.

Von Ah D, Ebert S, Ngamvitroj A, et al (2005). Factors related to cigarette smoking initiation and use among college students. *Tob Induc Dis*, **3**, 27.

WHO (2011). Report on the global tobacco epidemic, warning about the dangers of tobacco. Available from: http://www.who. int/tobacco/ global _ report/2011/en/.

WHO (2014). Regional office for Europe.Tobacco, Data and Statistics. 2014. Available from: http://www.euro.who.int/en/health-topics/disease-prevention/tobacco/data-and-statistics.