

# Perception and practices of tobacco smoking among medical students in the Nile Delta, Egypt

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**Abstract** This study was conducted to identify medical students' perception and practices towards tobacco smoking, as well as to identify factors affecting their adoption to smoking habit, among medical students in the Nile Delta. From December 2014 to February 2015, a questionnaire-based cross-sectional study was conducted at the four faculties of medicine in the Nile Delta. A total of 1715 students were targeted from the 2nd to 6th academic years to represent different levels of knowledge, awareness, and the influence of medical education on their attitude towards smoking. 5.6 and 1.2% of the students reported being smokers and ex-smokers, respectively, with a higher prevalence among 6th-year students, 40% of them reported to be involved with substance abuse. In general, medical students had positive antismoking attitude. The prevalence of smoking among medicine students was not high. However, there is a need to address smoking cessation programs during their study.

**Keywords** Tobacco smoking · Shishah smoking · Water-pipe smoking · Medical students · Egypt

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## Introduction

Globally, smoking is a rapidly growing problem of public-health concern as nearly third of the world's population, aged 15 years or above, are smokers. And the prevalence is on the rise, especially in developing countries (Eticha and Kidane 2014). Researchers projected that by 2030, tobacco annual deaths could exceed eight million, over 80% of which will be in low- and middle-income countries unless the tobacco control programs were fast and efficient enough (WHO 2014).

Most smokers start this addictive behavior in adolescence (16 and older), the age of high school and early collage (Khuder et al. 1999). Studies found that the younger the starting age, the more consumption and the harder the quitting (Everett et al. 1999). College life is an important transition period during which young adults set out to explore tobacco use. Some surveys have reported that the prevalence of cigarette smoking continues to rise among college students, which could be related to stress, life problems, peer pressure, social acceptance, and the desire to attain high personality profile (Eticha and Kidane 2014). Moreover, a research stated that medical students' tobacco consumption increases with their training (Mas et al. 2004). These observations create a need for efficient antismoking curricula in medical schools to help future physicians control smoking habits and help their patients.

Egypt is one of the 15 countries worldwide with a heavy burden of tobacco-related ill health—according to the World Health Organization's 2013 standardized estimate of smoking prevalence, 40.5% of men, 0.3% of women, and 20.3% of Egypt's population overall are daily tobacco smokers (WHO 2015). Medical students and later physicians are role models in their society and have a major influence on their patients and the community regarding smoking habits. At individual level, they can help educate the population. At community

level, physicians can support antismoking policies and at a societal level, they can influence national and global tobacco control efforts. Smoking physicians play little role in motivating their patients to quit smoking (Mas et al. 2004). Therefore, medical students represent a primary target for tobacco-prevention programs. Educating and training medical students about smoking prevention and treatment will prepare them for the task of helping smokers quit. The present study aimed to identify medical students' perception and practices towards tobacco smoking and factors affecting adoption to this habit.

## Methods

### Study settings

This study was a multicenter study including four faculties of medicine in the Nile Delta (Tanta, Mansoura, Menoufiya, and Zagazig). They hosted 15,333 students and follow the core curriculum of the Supreme Council of Universities.

### Study design

This was a cross-sectional study.

### Study sample size and selection

The study population was stratified into two groups: students in the first three academic years studying mainly basic medical sciences with limited exposure to smoking-related health hazards and those in the following three clinical years where they received most of the information on smoking-related health hazards. The second academic year was selected randomly to represent the first groups, and the sixth year (final academic year) was selected to represent students of the second group. Students in each academic year are divided into subgroups for their practical tutorials. One subgroup was selected randomly to be included in the study sample. The researchers intended to include a sample size representing 10% of all enrolled students in the selected medical schools. The total sample size was 1715 while those who filled the questionnaire totaled 1438 representing a response rate of 83.8%. Students who were absent during the study period were 246 representing 14.3% while those who refused to fill in the questionnaire totaled 31 representing 1.8%.

### Data collection

The data were collected using a self-administered predesigned questionnaire sheet. The questionnaire sheet included the following data:

- Socio-demographic data

- Perception of smoking by medical students
- Smoking behavior among medical students
- Perception of smoking by smoking medical students

All questions were closed-ended. Questions related to perception towards smoking were closed-ended on a Likert scale: strongly agree, agree, don't know, disagree, and strongly disagree.

### Definitions

Smoking status was established according to the World Health Organization criteria for cigarette smoking (Guidelines for controlling and monitoring the tobacco epidemic 1998) and the criteria set by Maziak et al. (2005) for water-pipe smoking (Maziak et al. 2005).

### Statistical analysis

The collected data were organized, tabulated, and statistically analyzed using SPSS version 19 (Statistical Package for Social Studies) created by IBM, Chicago, IL, USA. For categorical variable, the number and percentage were calculated and differences between subcategories were tested by chi-square ( $\chi^2$ ). When chi-square was not appropriate, Monte Carlo exact test was used. The level of significant was adopted at  $p < 0.05$ .

### Ethical considerations

1. The authors got approval for the study from the internal ethical review board of Tanta Faculty of Medicine which was accepted by other faculties.
2. Questionnaires were filled anonymously.
3. A verbal consent was obtained before data collection.

## Results

The majority of students (79.2%) live with their families in a family property (91.6%). University level of education was reported for 80.7% of fathers and 70.3% of mothers of the participants. Fathers of the participants were either employees (31.8%) or professionals (60.3%), and they were present continuously in the family as reported by 78.4% (Table 1).

The highest prevalence of smoking was 10.0% among Zagazig medical students followed by 5.5% in Tanta and the least was 2.8% in Menoufiya. These differences were statistically significant. Prevalence of smoking among final-academic-year students was 7.8%, which was significantly higher than 3.3% among second-year students. Male smokers represented 10.8% compared to 0.5% for females, a difference

**Table 1** Characteristics of studied medical students

Variables	Smokers		Nonsmokers		Total		$\chi^2$	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
Faculty:							18.182	0.001 <sup>a</sup>
Mansoura	13	3.7	334	96.3	347	100		
Menoufiya	8	2.8	227	97.2	285	100		
Tanta	25	5.5	431	94.5	456	100		
Zagazig	35	10.0	315	90.0	350	100		
Academic year:							13.755	0.001 <sup>a</sup>
Second	23	3.3	673	96.7	696	100		
Final	58	7.8	684	92.2	742	100		
Gender:							71.678	0.001 <sup>a</sup>
Males	77	10.8	633	89.2	710	100		
Females	4	0.5	724	99.5	728	100		
Residence:							5.456	0.019 <sup>a</sup>
Urban	54	6.9	724	93.1	778	100		
Rural	27	4.1	633	95.9	660	100		
Residence during study:							30.283	0.001 <sup>a</sup>
With family	56	4.9	1083	95.1	1139	100		
Students' residence	3	2.3	127	97.7	130	100		
Relative or friends	10	9.1	100	90.9	110	100		
Alone	12	20.3	47	79.7	59	100		
Psychological pressures:							3.998	0.262
No	11	6.8	150	93.2	161	100		
Rarely	6	3.0	192	97.0	198	100		
Sometimes	43	5.5	735	94.5	778	100		
Most of the times	21	7.0	280	93.0	301	100		
Fathers' educations:							MCET	0.428
Illiterate	1	3.7	26	96.3	27	100		
Primary	2	4.0	48	96.0	50	100		
Secondary	7	3.5	194	96.5	201	100		
University	71	6.1	1089	93.9	1160	100		
Mothers' educations:							MCET	0.422
Illiterate	3	5.6	51	94.4	54	100		
Primary	1	1.6	63	98.4	64	100		
Secondary	15	4.9	294	95.1	309	100		
University	62	6.1	949	93.9	1011	100		
Fathers' occupations:							9.192	0.056
Unemployed	0	0.0	11	100	11	100		
Manual work	2	2.7	73	97.3	75	100		
Employee	19	4.1	439	95.9	458	100		
Professional	56	6.5	811	93.5	867	100		
Private work	4	14.8	23	85.2	27	100		
Presence of father in family							18.814	0.001 <sup>a</sup>
Present	50	4.4	1078	95.6	1128	100		
Working outside Egypt	18	12.4	127	87.6	145	100		
Died	13	8.6	139	91.4	152	100		
Separated/divorced	0	0.0	13	100	13	100		
Monthly pocket money:							38.363	0.001 <sup>a</sup>
<100	3	4.3	66	95.7	69	100		
100–250	11	2.5	425	97.5	436	100		
251–500	26	4.4	562	95.6	588	100		
>500	39	12.7	269	87.3	308	100		

<sup>a</sup> Significant MCET = Monte Carlo exact test

of statistical significance. Students of urban residence showed a higher prevalence of 6.9% of smoking compared with 4.1% for their rural peers which was found statistically significant. The highest prevalence of smoking was for students living alone (20.3%) followed by 9.1% for those living with a relative or a friend. Meanwhile, a lower prevalence of 4.9 and 2.3% was reported for those living with family or in students' residence, respectively. These differences were statistically

significant. Elder- or youngest-birth students showed a prevalence of smoking of 6.2 and 8.4%, respectively, which was significantly higher than 3.3% for middle-birth students (Table 1).

The family characteristics of participating students showed that family housing type and parents' educations and occupations had no significant effect on the prevalence of smoking. Students reporting the presence of a father in the family

showed a lower prevalence of smoking of 4.4% compared with 12.4% for students whose fathers worked abroad, a difference found statistically significant. Students with six siblings or more showed the highest prevalence of smoking of 16.7% followed by 8.5% for those having only one sibling, a difference of statistical significance. Also, pocket money significantly affected smoking prevalence where the prevalence was high among those receiving pocket money of >EL500/month (12.7%) (Table 1).

Studied students reported that physicians should always advise patients to quit smoking (94.1%) and physicians' advice is more acceptable than other persons' (78.0%). They also reported that the advice to quit smoking is more acceptable from nonsmoking physicians (92.1%) who should be a nonsmoking model to patients (94.2%). The perception of females to these two points was significantly higher than that of males. Nearly two thirds of medical students (63.3%) disagree that shisha smoking is less hazardous than cigarettes. The disagreement was significantly higher among males (66.1%) compared to females (60.6%). The majority of studied students agreed with prohibition of:

- Smoking in public places (92.3%)
- Selling tobacco products to adolescents (89.5%)
- Tobacco products advertisement (89.7%)

These statements were significantly more accepted by females compared to males (Table 2).

Disagreement with the statement that smoking increases the attractiveness of smokers was reported by 82.3% of females and 71.4% of males which was significantly different. Medical students who disagreed with the statements that smoking is a personal matter that does not concern patients were 62.5% with a significant difference in relation to gender where disagreement by males was 53.4% compared to 71.4% among females. Females rejected the statements that the youth appear more grown-up with smoking (94.2%) and that smoking makes people comfortable in gatherings (84.2%) in significantly higher percentages than that reported by males (84.9 and 68.6%, respectively). A percentage of 49.7% rejected the idea that smokers have more friends than nonsmokers and was found significantly higher among females (55.1%) compared to males (44.2%) (Table 2).

Among the participants, 92.1% reported the presence of many hazards including cancer, 87.9% agreed that smoking is a type of addiction, and 94.4% agreed that passive smoking is hazardous to nonsmokers. The agreement by females was significantly higher than males. Prohibition of smoking at the workplace was agreed by 95.3% of females and 88.9% of males which was a difference of statistical significance. Only 53.8% agreed that they received enough information in their medical courses about the hazards of smoking (Table 2).

Among studied students, 5.6% were current smokers and 1.2% were ex-smokers. Among current smokers, 46.9% smoked both cigarettes and shisha while 33.3% smoked cigarettes only and 19.8% smoked shisha only. The majority of current smokers started smoking at university level (61.7%). Curiosity and life pressures represented the main motives for starting smoking (50.6 and 39.5%, respectively). Cafes were the most preferred places of smoking by 60.5% followed by gathering with friends as reported by 40.7%. Those reporting smoking <10 cigarettes daily represented 43.2% while 28.4% smoked 10–20 cigarettes per day. Smoking shisha was reported to be only in social circumstances by 38.3% while 23.5% reported smoking shisha one to two times weekly with the cafes the most preferred place of shisha smoking as reported by 74.1%. Hashish was also smoked by 21% of current smokers, and 16% reported smoking hashish and bhang. Among current smokers, 61.7% had the intention to quit smoking. Trials to quit smoking more than once were reported by 51.9% while 35.8% tried only once to quit smoking (Table 3).

Only 16% feel sexier while smoking while 22.2 and 39.5% felt more grown-up and consider holding a cigarette a joy, respectively. Dependence on smoking was expressed by 65.4% who reported missing something when stopping smoking, and 60.5% were pleased while smoking. Current smokers feel a great desire to smoke while relaxing (59.3%), when feeling angry (66.3%), and may start smoking unintentionally (60.5%). Being "more able to concentrate while smoking" was reported by 54.3% of current smokers, 38.3% of current smokers became much annoyed when not having cigarettes, and 30.9% felt too difficult to stay without cigarettes for 1 week while 24.7%, respectively (Table 4).

## Discussion

The overall prevalence of smoking among medical students was 5.6% which was found to be 10.8 and 0.54% of male and female participants, respectively. These results were lower than that of the general population, estimated as 26 and 1% for males and females, respectively (WHO 2009). These results were also lower than studies in neighboring countries. In Saudi Arabia, smoking among medical students was found to be 18 and 19% in two different studies conducted in Riyadh (Al-Haqwi and Tamim 2010; Al-Kaabba et al. 2011). Among Iranian and Jordanian dental students, it was found to be 22 and 17%, respectively (Alomari et al. 2006; Khami et al. 2010). In Nigeria, the prevalence of smoking was 1.2% among medical students in Lagos and 3% in Ibadan and Ilorin medical schools (Dania et al. 2015).

A significant gender difference of smoking in this study agrees with studies in neighboring countries (Al-Haqwi and Tamim 2010; Al-Kaabba et al. 2011). Lower smoking rates

**Table 2** Perception of medical students to smoking habit by gender

Variables	Males (n = 710)		Females (n = 728)		Total (n = 1438)		$\chi^2$	p
	n	%	n	%	n	%		
The advice to quit smoking is more acceptable from non-smoking physicians							15.919	0.001 <sup>a</sup>
Totally agree/agree	635	89.4	690	94.8	1325	92.1		
Don't know	36	5.1	13	1.8	49	3.4		
Disagree/totally disagree	39	5.5	25	3.4	64	4.5		
Physicians should be none smoking model for patients							26.062	0.001 <sup>a</sup>
Totally agree/agree	646	91.0	708	97.3	1354	94.2		
Don't know	26	3.7	10	1.4	36	2.5		
Disagree/totally disagree	38	5.4	10	1.4	48	3.3		
Shisha smoking is less hazardous than cigarettes:							15.919	0.001 <sup>a</sup>
Totally agree/agree	110	15.5	90	12.4	200	13.9		
Don't know	131	18.5	197	27.1	328	22.8		
Disagree/totally disagree	469	66.1	441	60.6	910	63.3		
Smoking should be panned in public places							29.394	0.001 <sup>a</sup>
Totally agree/agree	629	88.6	698	95.9	1327	92.3		
Don't know	23	3.2	14	1.9	37	2.6		
Disagree/totally disagree	58	8.2	16	2.2	74	5.1		
Selling tobacco products to adolescents should be prohibited							58.726	0.001 <sup>a</sup>
Totally agree/agree	593	83.5	694	95.3	1287	89.5		
Don't know	38	5.4	20	2.7	58	4.0		
Disagree/totally disagree	79	11.1	14	1.9	93	6.5		
Tobacco products advertisements should be prohibited							35.962	0.001 <sup>a</sup>
Totally agree/agree	603	84.9	687	94.4	1290	89.7		
Don't know	40	5.6	20	2.7	60	4.2		
Disagree/totally disagree	67	9.4	21	2.9	88	6.1		
Smoking increases attractiveness of the smokers							26.492	0.001 <sup>a</sup>
Totally agree/agree	124	17.5	67	9.2	191	13.3		
Don't know	79	11.1	62	8.5	141	9.8		
Disagree/totally disagree	507	71.4	599	82.3	1106	76.9		
Smoking is a personal matter that should not concern patients							58.902	0.001 <sup>a</sup>
Totally agree/agree	266	37.5	144	19.8	410	28.5		
Don't know	65	9.2	64	8.8	129	9.0		
Disagree/totally disagree	379	53.4	520	71.4	899	62.5		
Youth appear more grown up while smoking:							42.770	0.001 <sup>a</sup>
Totally agree/agree	61	8.6	11	1.5	72	5.0		
Don't know	46	6.5	31	4.3	77	5.4		
Disagree/totally disagree	603	84.9	686	94.2	1289	89.6		
Smoking makes people more comfortable in parties and gatherings							64.041	0.001 <sup>a</sup>
Totally agree/agree	95	13.4	23	3.2	118	8.2		
Don't know	128	18.0	92	12.6	220	15.3		
Disagree/totally disagree	487	68.6	613	84.2	1100	76.5		
Smokers have more friends than nonsmokers							42.859	0.001 <sup>a</sup>
Totally agree/agree	166	23.4	78	10.7	244	17.0		
Don't know	230	32.4	249	34.2	479	33.3		
Disagree/totally disagree	314	44.2	401	55.1	715	49.7		
There many hazards to smoking including cancer							3.073	0.215
Totally agree/agree	646	91.0	679	93.3	1325	92.1		
Don't know	33	4.6	22	3.0	55	3.8		
Disagree/totally disagree	31	4.4	27	3.7	58	4.0		
Smoking is a type of addiction							14.012	0.001 <sup>a</sup>
Totally agree/agree	602	84.8	662	90.9	1264	87.9		
Don't know	38	5.4	29	4.0	67	4.7		
Disagree/totally disagree	70	9.9	37	5.1	107	7.4		
Passive smoking is hazardous to nonsmokers							9.336	0.009 <sup>a</sup>
Totally agree/agree	658	92.7	700	96.2	1358	94.4		
Don't know	25	3.5	17	2.3	42	2.9		
Disagree/totally disagree	27	3.8	11	1.5	38	2.6		
Smoking should be prohibited at workplace							23.792	0.001 <sup>a</sup>
Totally agree/agree	631	88.9	694	95.3	1325	92.1		
Don't know	31	4.4	20	2.7	51	3.5		
Disagree/totally disagree	48	6.8	14	1.9	62	4.3		

**Table 2** (continued)

Variables	Males ( <i>n</i> = 710)		Females ( <i>n</i> = 728)		Total ( <i>n</i> = 1438)		$\chi^2$	<i>p</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%		
	Have information about smoking hazards in medical courses							
Totally agree/agree	380	53.5	393	54.0	773	53.8		
Don't know	63	8.9	55	7.6	118	8.2		
Disagree/totally disagree	267	37.6	280	38.5	547	38.0		

<sup>a</sup> Significant**Table 3** Distribution of smokers by their smoking habits

Variables	Number ( <i>n</i> = 81)	
Type of smoking:		
Cigarettes	27	33.3
Shisha	16	19.8
Both	38	46.9
Stage of starting smoking:		
Primary education	2	2.5
Preparatory education	7	8.6
Secondary education	22	27.2
University education	50	61.7
Reasons of starting smoking:		
Life pressures	32	39.5
Curiosity	41	50.6
Peer pressures	20	24.7
Other causes	12	14.8
Preferred place for smoking: <sup>*</sup>		
Home	17	21.0
Public places and streets	17	21.0
Gathering with friends	33	40.7
Cafes	49	60.5
Other places	5	6.2
Amount of daily smoked cigarettes:		
Don't smoke cigarettes	15	18.5
<10	35	43.2
10–20	23	28.4
>20	8	9.9
Frequency of shisha smoking:		
I don't smoke shisha	17	21.0
Occasionally in social circumstances	31	38.3
1–2 times weekly	19	23.5
3–5 time weekly	8	9.9
Daily	6	7.4
Preferred places for Shisha smoking <sup>a</sup> :		
I don't smoke shisha	17	21.0
Cafes	60	74.1
Home	2	2.5
Other places	5	6.2
Drug abuse with smoking:		
None	50	61.7
Bango	1	1.2
Hashish	17	21.0
Bango and hashish	13	16.0
Have the intention to quit smoking	50	61.7
Previous trials to quit smoking		
None	10	12.3
Once	29	35.8
2–3 times	23	28.4
>3 times	19	23.5
Know center to help quitting smoking	36	44.4

<sup>a</sup> More than one place was mentioned

among females can be explained by being culturally unacceptable (Smith and Leggat 2007). Male students in this study have higher smoking rates than male students in Brazil (6%) (Martins et al. 2014), England (7%) (Barber and Fairclough 2006), and roughly similar to India (10%) (Centers for Disease Control and Prevention, CDC 2005).

In this study, the higher prevalence of smoking among final-academic-year students was reported by similar studies (Underwood and Fox 2000; Dumitrescu 2007), which could be attributed to the stressful nature of medical education that increases with the progress in medical education (Mas et al. 2004; Taha et al. 2010; Al-Kaabba et al. 2011). To explain the relationship between smoking and anxiety, some studies suggested that certain baseline anxiety disorders may represent risk factors for starting smoking, while others stated that smoking may be a risk factor for anxiety disorders (Moylan et al. 2012).

In Arab countries, parental supervision could prevent, delay, or help in smoking cessation. In the present study, smoking prevalence among students whose fathers exist within the family was lower. Also, students who lived alone, with relatives, or with friends reported higher prevalence of smoking. This may show that parental supervision has an effective role in smoking prevention. Taheri et al. showed that living in dormitories without parental supervision with freedom from limitations can change an individual's lifestyle (Taheri et al. 2014).

The participating students in the present study showed high knowledge regarding the health hazards of passive smoking and that smoking is a type of addiction. However, they had a lower knowledge of the hazards of water-pipe smoking compared to cigarettes, despite evidences that water pipes are more hazardous on health than cigarettes in addition to transmission of infections (Aslam et al. 2014).

A smoking physician is less likely to address smoking problems with his patients (Maziak et al. 2005). Medical students' opinions on physician smoking in this study agreed that the advice to quit smoking is more acceptable from nonsmoking physicians and that physicians should be nonsmoking models for their patients. Doctors are role models for their patients (Bolinder et al. 2002) and play an important role in

**Table 4** Distribution of smoking medical students by their perceptions towards smoking

Items of perception	Totally agree/agree		Don't know		Disagree/ totally disagree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
I feel more sexy while smoking	13	16.0	12	14.8	56	69.1
I feel more grown up while smoking	18	22.2	10	12.3	53	65.4
Holding the cigarette in my hand is a joy	32	39.5	16	19.8	33	40.7
I feel missing something when stopping smoking for a period	53	65.4	11	13.6	17	21.0
I feel pleased while smoking	49	60.5	15	18.5	17	21.0
I have great desire to smoke while relaxing	48	59.3	10	12.3	23	28.4
I have great desire to smoke in case of anxiety or tension	62	76.5	10	12.3	9	11.1
I tend to smoke when feel angry	53	66.3	11	13.8	16	20.0
Sometimes I start smoking unintentionally	49	60.5	16	19.8	16	19.8
I can concentrate more while smoking	44	54.3	20	24.7	17	21.0
I became much annoyed when my cigarettes finished	31	38.3	11	13.6	39	48.1
It is too difficult to me to stay without cigarettes for one week	25	30.9	11	13.6	45	55.6
It is too difficult to me to stay without cigarettes for one day	20	24.7	10	12.3	51	63.0
It is too difficult to me to stay without cigarettes for one hour	13	16.0	11	13.6	57	70.4
Smoking help me socialize and have friends	18	22.2	15	18.5	48	59.3

encouraging smokers to quit. Smoking physicians are not as effective in addressing smoking cessation (Dumitrescu 2007).

Most students in the present study started smoking during college time, a critical period of personality formation, which may be due to smoking makes them feel like grown-ups and helps them to be accepted by others (Evans et al. 2006). However, smoking students in the present study disagreed with both ideas. In our study, the percentage of smokers in the final year was more than twice the smokers in the second year which questions if the medical school has the right influence. This observation was confirmed by a study conducted in Spain showing that smoking among medical students is more prevalent and increases with proceeding in studying (Nerín et al. 2004).

There is an increasing trend of water-pipe smoking among youth. It is viewed now as a social activity (Blank et al. 2014). Smokers tend to smoke water pipes in groups in cafes which provide this service, along with the online blogs and websites dedicated to water pipes (American Lung Association 2007). Many smokers in our study confirmed that cafes were the preferred places for smoking especially for water pipes.

To attract new users, the smoking industry designs marketing campaigns featuring active and attractive youth enjoying life with tobacco (WHO 2015). The majority of participants in the study agreed on prohibition of advertising smoking, selling cigarettes to adolescents, and smoking in public places. This observation is in line with a study where smoking and nonsmoking doctors agreed with 93.3 and 96.7%, respectively, on banning smoking

within closed public places in Northern Syria (Maziak et al. 2005). Increases in cigarette prices reduce the initiation, prevalence, and intensity of smoking among youth (WHO 2015), asserting our results as the majority of smokers received more than EL500 per month as pocket money allowing them to spare money for smoking.

Most smokers in the present study were light to moderate smokers which is predictable among young and educated population (Husten 2009). Water-pipe consumption rate ranged from smoking occasionally to once or twice weekly. Nondaily smoking pattern is considered a transient phase between initiation and cessation attempts (Schane et al. 2010).

The majority of smokers in the present study want to quit. Most of them did not know about centers that can help them quit. These results are important indicators of the need for initiation of smoking cessation programs for university students.

A study in India showed that illicit drug use was associated with tobacco (Rai et al. 2008). In the present study, 40% of smokers smoked hashish or bhang. Substance dependence threatens the ability of physicians to provide decent patient care (Kumar and Basu 2000).

### Conclusion and recommendations

Medical students had positive antismoking attitude. The prevalence of smoking is relatively not high. However, there is a need for nonsmoking campaigns for smokers to quit smoking.

## Compliance with ethical standards

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