

Harmfulness awareness and smoking status determinants among university students in Baghdad (Iraq)

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ABSTRACT

Tobacco use remains one of the most pressing global health challenges. Approximately 80% of smokers worldwide reside in low- and middle-income countries, where the burden of tobacco-related morbidity and mortality is disproportionately high. Cigarette smoking is notably prevalent among university students. This study aimed at investigating and evaluating the awareness and determinants of smoking status within a university student sample, and at examining the association between awareness levels and smoking-related determinants. A descriptive-analytical cross-sectional study was conducted involving 230 university students who smoke, recruited from Baghdad City. Data were collected using a structured questionnaire designed to assess participants' awareness of smoking-related harms and the factors influencing their smoking behavior. The majority of the participants were male and aged between 18 and 23 years. Most reported smoking cigarettes and hookah, and demonstrated awareness of the harmful effects of smoking, including its role as a major cause of lung cancer, heart disease, and respiratory conditions. The lowest level of agreement was recorded for the statement linking smoking to road traffic accidents. Nearly half of the participants acknowledged that smoking negatively affects family income. Statistical analysis revealed a significant association between students' awareness and the determinants of smoking status, as well as with their sociodemographic characteristics.

1. Introduction

Although smoking prevalence has declined overall – with current smoking rates decreasing from 18.2% in 2011/2012 to 14.9% in 2017/2018, and daily smoking from 16.3% to 13.1% over the same period – rates remain disproportionately high among individuals aged 18–24 years (20%), 25–34 years (22%), Pasifika peoples (23%), and Māori (34%), compared with the general population¹.

Many college health professionals report that students often respond to smoking status questions with statements such as *“I only smoke when I go out”* or *“I only smoke socially”*. Focus group discussions with college students have revealed that some identify as “social smokers” and perceive themselves as distinct from habitual smokers².

Tobacco use continues to pose a major global health concern. Approximately 80% of the world’s smokers reside in low- and middle-income countries, where tobacco-related morbidity and mortality rates are highest. Tobacco consumption is increasing at an estimated annual rate of 3.4% in developing countries, particularly in regions such as Africa and the Eastern Mediterranean, where health systems are under-resourced³. Given that smoking is responsible for approximately 440,000 deaths annually and incurs an estimated \$157 billion in health-related economic costs each year, this burden is projected to rise. Without adequate and comprehensive health education, student smokers may face escalating health risks and complications⁴.

University students undergo significant social and identity transitions as they move away from home (in most cases) and form new peer networks⁵. Increased independence and exposure to new social circles may encourage smoking among occasional users and facilitate progression to daily smoking⁶.

This study aimed at investigating the awareness and determinants of smoking status among university students, and at examining the association between awareness levels and smoking-related determinants in relation to selected variables.

2. Methodology

A quantitative, descriptive-analytical cross-sectional study was conducted in order to assess

awareness and determinants of smoking status among university students who smoke, from 14 October 2022 to 25 April 2023. The study included a purposive sample of 230 smoking students, distributed equally across five colleges in Baghdad City: College of Nursing (N=46), College of Pharmacy (N=46), College of Business Administration (N=46), College of Dentistry (N=46), and College of Law (N=46). In order to achieve the study objectives, a structured questionnaire was developed and refined following an extensive review of relevant literature. The final instrument comprised two sections: (i) Part One addressed socio-demographic and personal characteristics, while (ii) Part Two assessed determinants and awareness related to smoking status.

Data were analysed using version 21 of the SPSS software. Ethical approval was obtained from the institutional review board of Al-Mustaqbal University’s College of Nursing. The study adhered to the ethical principles outlined in the Declaration of Helsinki. According to document 1015, the local ethics committee reviewed and approved the research protocol, data collection instruments, and informed consent documentation on 1 December 2024.

3. Results and Discussion

The majority of participants were male (72%) and aged 18–23 years (55%). Most were first-year students (27%). Smoking prevalence was higher among individuals from low to moderate socioeconomic status backgrounds. All participants were smokers, as per the purposive sampling criteria. Among them, 44% smoked cigarettes, 42% smoked hookah, and 14% used electronic cigarettes. Notably, 84% reported being unaffected by the smell of cigarettes, likely due to olfactory desensitization from habitual smoking. Awareness of the harmful effects of passive smoking was reported by 80% of the sample (Table 1).

While general awareness of smoking-related health risks was high (including recognition of its role in lung cancer, heart disease, bladder cancer,

Table 1. General determinants and awareness of smoking status among the studied sample.

#	Questions	Yes		No	
		N	%	N	%
#1	Do you work after study hours?	177	77%	53	23%
#2	If the answer to #1 is "yes", what is the work?	employee: 27 (15%); free business: 150 (85%)			
#3	Is there any of your family a smoker?	204	89%	26	11%
#4	Is there any of your friends a smoker?	169	73%	61	27%
#5	Do you get upset and bothered with cigarette smoking?	37	16%	193	84%
#6	Do you know the harmful effects of passive smoking?	185	80%	45	20%
#7	Are you with a project without smoking?	129	56%	101	44%
#8	Are there laws that prevent smoking in public?	170	74%	60	26%
#9	The number of cigarettes that can you consume in a day.	less than a pack: 55 (24%); one pack: 141 (61%); more than a pack: 34 (15%)			
#10	Smoking is harmful to health; smoking is a major cause of lung cancer, heart disease, bladder cancer, oral cancer, and respiratory diseases.	215	93%	15	7%
#11	Smoking is a cause of road accidents.	3	1%	227	99%
#12	Smoking affects family income.	110	48%	120	52%
#13	Awareness of the harms of smoking helps stopping it.	75	33%	155	67%
#14	The lack of awareness of the harms of smoking is one of the reasons for its use.	133	58%	97	42%
#15	The cultural level of the family affects the use of smoking.	29	13%	201	87%

oral cancer, and respiratory illnesses), awareness of less commonly discussed risks was limited. For instance, only 1% (N=3) agreed with the statement that smoking contributes to road traffic accidents. Approximately half of the participants acknowledged the negative impact of smoking on family income. These findings align with recent studies indicating that most student smokers are aware of major health risks associated with smoking. However, the results diverge from those of an earlier study⁷, which has reported low awareness among smokers regarding certain health consequences.

Finally, statistical analysis revealed significant associations between awareness levels and selected socio-demographic variables, particularly age and sex.

4. Conclusion

While general awareness of smoking-related health risks was found to be high, awareness of its contri-

bution to road accidents was notably low. Half of the participants recognized the economic burden of smoking on their families. Statistically significant associations were observed between students' awareness and their socio-demographic characteristics, especially age and sex.

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Conflicts of interest

None exist.

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