

**TOBACCO USE AND CESSATION COUNSELING AMONG HEALTH PROFESSIONAL STUDENTS • LEBANON GLOBAL HEALTH PROFESSIONS STUDENT SURVEY, 2005**

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Saade G, Warren CW, Jones NR, Mokdad A. Tobacco use and cessation counseling among health professional students : Lebanon Global Health Professions Student Survey, 2005. *J Med Liban* 2009 ; 57 (4) : 243-247.

Saade G, Warren CW, Jones NR, Mokdad A. Consommation de tabac et formation des étudiants des professions de santé au Liban au sevrage tabagique : Enquête Lebanon GHPSS, 2005. *J Med Liban* 2009 ; 57 (4) : 243-247.

**ABSTRACT • INTRODUCTION :** The number of deaths attributable to tobacco use is rising globally. Health professionals can help reduce tobacco use by providing advice to patients regarding smoking cessation. Very few studies have collected information on tobacco use and cessation counseling training among health professional students. The purpose of this paper is to examine these issues using data from the 2005 Lebanon Global Health Professions Student Survey (GHPSS).

**METHODS :** The 2005 Lebanon GHPSS includes nationally representative estimates of third-year students in all dental, medical, nursing, and pharmacy schools in Lebanon.

**RESULTS :** Current cigarette use ranged from 14.8% for pharmacy students to 26.9% for nursing students and 27.4% for medical students. Current waterpipe use ranged from 20.6% for medical students to 44.9% for nursing students. About 8 in 10 students in all four disciplines were exposed to second-hand smoke in public places.

More than 8 in 10 students in medical, nursing, and pharmacy schools believed that health professionals have a role in giving advice or information on smoking cessation to patients. More than 9 in 10 students in all four disciplines believed that health professionals should receive training on smoking cessation techniques.

However, those who received training ranged from 19.8% of pharmacy students to 43.7% of nursing students.

**CONCLUSION :** Tobacco use (cigarettes and waterpipe) is high among third-year health professional students in Lebanon. Students are willing to provide smoking-cessation counseling but lack training. The Ministry of Public Health, the Ministry of Education, and educational institutions in Lebanon should work together with other interested partners in developing, testing, and implementing successful patient cessation counseling training programs for health professionals.

**RÉSUMÉ • INTRODUCTION :** Le nombre de décès attribuable au tabac est globalement en nette augmentation. Les professionnels de santé peuvent aider à la diminution du tabagisme en conseillant aux patients le sevrage tabagique. Très peu d'études ont collecté des informations sur la consommation de tabac parmi les étudiants des professions de santé, et sur leur formation pour aider au sevrage tabagique. Cet article examine ces points en utilisant les données de l'enquête 2005 *Lebanon Global Health Professions Student Survey* (GHPSS).

**MÉTHODES :** *Lebanon GHPSS 2005* inclut un échantillon national représentatif des étudiants de 3<sup>e</sup> année des facultés de médecine, de médecine dentaire, de pharmacie et de sciences infirmières au Liban.

**RÉSULTATS :** L'enquête a montré que 14,8% des étudiants en pharmacie, 26,9% des étudiants en soins infirmiers et 27,4% des étudiants en médecine fument des cigarettes. L'utilisation du narghilé varie entre 20,6% chez les étudiants en médecine et 44,9% chez les étudiants en soins infirmiers. Environ 8 étudiants sur 10 ont été exposés au tabagisme passif dans les lieux publics. Plus de 8 étudiants sur 10 (médecine dentaire non incluse) estiment que conseiller et informer les patients des modalités de sevrage tabagique doit être un des rôles des professionnels de santé. Alors que plus de 9 étudiants sur 10 dans les quatre disciplines considèrent que les professionnels de santé doivent être formés aux techniques de sevrage tabagique, les taux de ceux qui ont reçu cette formation s'échelonnent entre 19,8% chez les étudiants en pharmacie et 43,7% chez les étudiants en soins infirmiers.

**CONCLUSION :** La consommation de tabac (cigarette et narghilé) est élevée parmi les étudiants de 3<sup>e</sup> année des écoles/facultés de santé au Liban. Les étudiants sont enclins à prodiguer des conseils sur le tabagisme, mais ils manquent de formation. Le ministère de la Santé, le ministère de l'Éducation et les institutions d'enseignement au Liban doivent œuvrer ensemble et collaborer avec d'autres partenaires intéressés pour initier, évaluer et implémenter des programmes de formation des professionnels de santé pour le sevrage tabagique.

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## INTRODUCTION

The annual number of deaths worldwide attributable to tobacco use is expected to double from 5 million in 2005 to more than 10 million in 2020 [1]. Health professionals are generally considered to be role models in communities and can contribute to tobacco control efforts by not smoking or quitting smoking ; by counseling their patients not to smoke ; by providing smoking cessation counseling and treatment ; and by being community advocates for tobacco control [2]. Thus, one strategy to reduce the number of smoking-related deaths is to encourage health professionals to discourage the use of tobacco among health professionals and to encourage them to become involved in tobacco-use prevention and cessation counseling.

A few studies have collected information from health professional students in various countries about their tobacco use and training as smoking-cessation counselors ; however, these studies did not use a consistent survey methodology or questionnaire [3-8]. To address this gap, the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention, and the Canadian Public Health Association developed and implemented the Global Health Professions Student Survey (GHPSS) to collect data on tobacco use and cessation counseling among health professional students in WHO member states [9]. This report examines data from the GHPSS conducted in Lebanon in 2005 among third-year students in four health profession disciplines : dentistry, medicine, nursing, and pharmacy.

## METHODS

The GHPSS is part of the Global Tobacco Surveillance System (GTSS), which collects data through three surveys : the GHPSS, the Global Youth Tobacco Survey, and the Global School Personnel Survey [9]. The GHPSS is a study of third-year university students pursuing advanced degrees in dentistry, medicine, nursing, or pharmacy. The GHPSS uses a standardized methodology for selecting schools and students, a consistent data collection process, and uniform data-processing procedures. In countries with few health professional schools, a census of schools and students is used as the sampling method. For the 2005 Lebanese GHPSS, a census of schools included 3 dental schools, 6 medical schools, 9 nursing schools, and 4 pharmacy schools. The GHPSS was conducted in schools during regular lectures and class sessions, a census of all third-year students from all schools was taken as the study population. Hence, it was a census (population) study. From each of the sample schools, all third-year students were recruited as participants. SUDAAN was used in the analyses to account for the sampling design in the calculation of weighted estimates, standard errors of the estimates, and asymmetric 95% confidence intervals (shown as lower and upper bounds) [10].

The survey uses a core questionnaire on demographics, prevalence of cigarette use and other tobacco use, know-

**TABLE I**  
NUMBER OF SCHOOLS AND STUDENTS  
& OVERALL RESPONSE RATES, BY DISCIPLINE  
LEBANON GLOBAL HEALTH PROFESSIONS STUDENT SURVEY, 2005

	Number of Schools	Response Rate	Number of Students
Dental	3	64.0	71
Medical	7	69.0	243
Nursing	9	68.3	343
Pharmacy	5	71.8	171

ledge and attitudes about tobacco use, exposure to second-hand smoke, desire to quit smoking, and training received in counseling patients on smoking-cessation techniques. The questionnaire used in the 2005 Lebanon GHPSS was translated into Arabic and back-translated to check for accuracy. Questions on tobacco use included cigarette use as well as waterpipe use, a common form of tobacco use in the Middle East. The survey was conducted in schools during regular class sessions using an anonymous, self-administered format for data collection.

## RESULTS

### Response rates

The student response rates were : dental, 64.0% of 71 students ; medical, 69.0% of 243 students ; nursing, 68.3% of 343 students ; and pharmacy, 71.9% of 171 students (Table I).

### Student characteristics

More than 7 in 10 nursing and pharmacy students, 67.2% of dental students, and 44.5% of medical students were women. Among the dental, nursing, and pharmacy students, more than 9 in 10 were aged 19 to 24 years. Among the medical students, 75.5% were aged 19 to 24 and 21.2% were aged 25 to 29.

### Prevalence of tobacco use

Almost 7 in 10 dental students had ever smoked cigarettes, compared with more than 6 in 10 medical and nursing students and more than 5 in 10 pharmacy students (Table II). In medical, nursing, and pharmacy schools, male students were significantly more likely than female students to have ever smoked. More than 7 in 10 nursing students had ever used waterpipe, compared with about 6 in 10 dental and medical students, and more than 5 in 10 pharmacy students. Male nursing students (80.1%) were significantly more likely than female nursing students (66.8%) to have ever used waterpipe.

Current cigarette smoking (defined as currently smoking daily or occasionally) ranged from 14.8% for pharmacy students to 26.9% for nursing students and 27.4% for medical students (Table II). Among medical, nursing, and pharmacy students, men were significantly more likely

**TABLE II**  
PREVALENCE OF TOBACCO USE AMONG THIRD-YEAR DENTAL, MEDICAL, NURSING, AND PHARMACY STUDENTS BY SEX  
LEBANON GLOBAL HEALTH PROFESSIONS STUDENT SURVEY, 2005

	LIFETIME USE						CURRENT USE <sup>a</sup>					
	Cigarettes			Waterpipe			Cigarettes			Waterpipe		
	No <sup>b</sup>	%	(95% CI) <sup>c</sup>	No.	%	(95% CI)	No.	%	(95% CI)	No.	%	(95% CI)
<b>Dental</b>												
Total	70	67.4	(60.0 - 74.0)	71	65.4	(57.8 - 72.4)	69	31.6	(24.4 - 39.7)	71	37.3	(30.1 - 45.1)
Male	26	66.9	(54.1 - 77.7)	26	65.5	(56.1 - 73.8)	25	34.8	(23.2 - 48.7)	26	30.6	(21.0 - 42.4)
Female	44	67.6	(58.5 - 75.5)	45	65.3	(51.7 - 76.8)	44	30.0	(21.4 - 40.3)	45	40.5	(31.2 - 50.6)
<b>Medical</b>												
Total	234	63.0	(59.5 - 66.4)	230	65.2	(61.7 - 68.6)	240	27.4	(24.3 - 30.7)	242	20.6	(17.8 - 23.6)
Male	132	71.0	(66.5 - 75.1)	128	69.3	(64.6 - 73.6)	135	35.9	(31.5 - 40.6)	135	22.0	(18.3 - 26.2)
Female	102	52.2	(46.7 - 57.6)	102	60.0	(54.5 - 65.2)	105	27.4	(24.3 - 30.7)	107	18.6	(14.8 - 23.1)
<b>Nursing</b>												
Total	332	64.3	(61.2 - 67.2)	342	70.2	(67.3 - 73.0)	334	26.9	(29.7 - 24.2)	343	44.9	(41.8 - 48.0)
Male	87	81.4	(76.2 - 85.7)	93	80.1	(74.9 - 84.5)	89	43.0	(37.1 - 49.1)	94	54.3	(48.3 - 60.1)
Female	245	58.7	(55.1 - 62.2)	249	66.8	(63.3 - 70.1)	245	21.5	(18.7 - 24.7)	249	41.6	(38.1 - 45.2)
<b>Pharmacy</b>												
Total	167	55.2	(51.0 - 59.3)	171	55.4	(51.3 - 59.4)	169	14.8	(12.2 - 17.8)	171	21.5	(18.4 - 24.9)
Male	41	73.7	(65.8 - 80.3)	42	62.9	(54.7 - 70.4)	42	23.8	(17.5 - 31.4)	42	21.8	(15.7 - 29.3)
Female	126	49.6	(44.9 - 54.3)	129	53.1	(48.4 - 57.8)	127	12.0	(9.4 - 15.2)	129	21.4	(17.9 - 25.4)

a : Defined as smoked cigarettes (or used waterpipe) on 1 or more days in the past 30 days.

b : The reported number is the unweighted number of cases in the denominator. The male and female numbers might not add to the total number because of nonresponse on the question that determines sex.

c : Confidence interval.

than women to currently smoke cigarettes. Current use of waterpipe ranged from 20.6% for medical students to 44.9% for nursing students. Male nursing students (54.3%) were significantly more likely than female nursing students (41.6%) to currently use waterpipe. Current cigarette smoking was significantly higher than current use of waterpipe for male and female medical students. Current use of waterpipe was significantly higher than cur-

rent cigarette smoking for female nursing and pharmacy students.

#### Exposure to secondhand smoke

About 8 in 10 students in all four disciplines were exposed to secondhand smoke in public places (defined as exposure during the past week) (Table III). Less than 7 in 10 students in all four disciplines supported the idea of

**TABLE III**  
EXPOSURE TO SECONDHAND SMOKE (SHS) IN PUBLIC PLACES, ATTITUDES TOWARD BANNING SHS, AND SCHOOL POLICY AND ENFORCEMENT REGARDING SHS AMONG THIRD-YEAR DENTAL, MEDICAL, NURSING, AND PHARMACY STUDENTS  
LEBANON GLOBAL HEALTH PROFESSIONS STUDENT SURVEY, 2005

	Exposed to smoke in public places during the past week			Think smoking should be banned in restaurants			Think smoking should be banned in discos, bars, or pubs			Report that college has an official policy banning smoking in college buildings and clinics			Report that, in colleges that have an official policy banning smoking in school buildings and clinics, the ban is enforced		
	No <sup>a</sup>	%	(95% CI)	No	%	(95% CI)	No	%	(95% CI)	No	%	(95% CI)	No	%	(95% CI)
<b>Dental</b>	71	77.0	(69.9 - 82.9)	70	61.7	(53.7 - 69.2)	71	41.3	(33.8 - 49.2)	71	50.6	(42.8 - 58.4)	31	28.8	(20.1 - 39.3)
<b>Medical</b>	238	80.7	(77.8 - 83.3)	242	69.6	(66.3 - 72.8)	237	46.7	(43.2 - 50.3)	241	51.5	(47.9 - 55.0)	125	61.0	(56.1 - 65.7)
<b>Nursing</b>	339	83.0	(80.5 - 85.2)	343	68.5	(65.5 - 71.3)	338	43.5	(40.5 - 46.6)	340	36.5	(33.6 - 39.6)	125	63.2	(58.0 - 68.0)
<b>Pharmacy</b>	169	81.6	(78.2 - 84.6)	170	66.8	(62.9 - 70.5)	171	47.9	(43.9 - 52.0)	170	48.8	(44.8 - 52.9)	87	64.0	(58.3 - 69.3)

a : The reported number is the unweighted number of cases in the denominator.

b : Confidence interval.

**TABLE IV**  
ATTITUDE TOWARD AND TRAINING IN SMOKING-CESSATION COUNSELING  
AMONG THIRD-YEAR DENTAL, MEDICAL, NURSING, AND PHARMACY STUDENTS  
LEBANON GLOBAL HEALTH PROFESSIONS STUDENT SURVEY, 2005

	% who thought health professionals have a role in giving advice or information about smoking cessation to patients			% who thought health professionals should get specific training on cessation technique			% who had ever received any formal training in smoking cessation approaches to use with patients in their (medical, dental, nursing, or pharmacy) school training		
	No <sup>a</sup>	%	(95% CI <sup>b</sup> )	No	%	(95% CI)	No	%	(95% CI)
<b>Dental</b>	65	71.8	(63.9 - 78.6)	70	95.2	(91.5 - 97.4)	71	32.9	(26.2 - 40.3)
<b>Medical</b>	243	89.9	(87.6 - 91.8)	242	93.8	(91.8 - 95.3)	237	29.1	(26.0 - 32.5)
<b>Nursing</b>	338	85.4	(83.1 - 87.4)	343	96.4	(94.9 - 97.4)	342	43.7	(40.6 - 46.8)
<b>Pharmacy</b>	170	86.1	(83.0 - 88.7)	171	97.1	(95.4 - 98.2)	171	19.8	(16.7 - 23.3)

a : The reported number is the unweighted number of cases in the denominator.

b : Confidence interval.

banning smoking in restaurants, whereas about 4 in 10 students supported banning smoking in discos, bars, or pubs – a rate significantly lower than that for restaurants. Fewer students in nursing schools (36.5%) than in dental (50.6%), medical (51.5%), or pharmacy (48.8%) schools reported that their schools had a ban on smoking in school buildings or clinics. Students attending dental schools (28.8%) were less likely to report high enforcement of the ban than students in medical (61.0%), nursing (63.2%), or pharmacy schools (64.0%).

#### Attitude toward smoking-cessation counseling and training received

More than 8 in 10 students in medical, nursing, and pharmacy schools believed that health professionals have a role in giving advice or information on smoking cessation to their patients (Table IV). Dental students (71.8%) were significantly less likely than students in the other three disciplines to believe that health professionals have such a role. More than 9 in 10 students in all four disciplines believed that health professionals should receive training on smoking-cessation techniques. However, those who received training ranged from 19.8% of pharmacy students to 43.7% of nursing students.

#### DISCUSSION

Health professionals who use tobacco send an inconsistent message to patients whom they counsel to quit smoking [11]. Therefore, our finding of high tobacco use among health professional students in Lebanon is problematic. Current cigarette smoking and current waterpipe use among female students in dental and nursing schools was as high as or higher than the smoking rate for adult females in Lebanon (30.6%). Current cigarette smoking and current narguileh use among male students

in nursing schools was as high as or higher than the smoking rate for adult males in Lebanon (42.3%). Indeed, these results suggest that Lebanon's tobacco control program needs to be broad and should address cigarette smoking and waterpipe use in both men and women.

Despite the issuance of ministerial decision number 1/213 on February 3, 1993, prohibiting smoking in hospitals, infirmaries, pharmacies, elevators, theaters, health clubs, public transport, and all educational institutions in Lebanon [12], more than 8 in 10 students in all four disciplines reported exposure to SHS in public places. Half of the dental and medical students reported that their schools have an official policy banning smoking in school buildings ; but students reported that enforcement is lax, particularly in the dental schools (29% reported laxness compared with 61% in the medical schools). Fewer than half of the students in nursing and pharmacy schools reported that their schools have a policy banning smoking ; but where the policy exists more than 60% reported that enforcement is high. These findings suggest that the Ministry of Public Health, the Ministry of Education, and the educational institutions in Lebanon should work together to implement this policy in all schools and to institute programs for effective enforcement.

GHPSS data show that less than 20% of pharmacy students, about 3 in 10 dental and medical students, and 4 in 10 nursing students in Lebanon received formal training in tobacco-cessation counseling of patients, even though more than 90% of the same students wanted this type of training to be included in their formal curricula. The students recognize their responsibility to provide patients with tobacco-cessation counseling and want to be properly trained to do so ; however, to date, few have received this training.

## CONCLUSIONS

Health professional schools, public health organizations, and education officials should discourage tobacco use among health professionals. Further, they should work together with the Ministry of Public Health, the Ministry of Education, and all educational institutions to strengthen the national tobacco control action plan in Lebanon and to develop, test, and implement successful patient cessation-counseling training programs for health professionals. Lebanon ratified the WHO Framework Convention on Tobacco Control (WHO FCTC) on December 7, 2005 [13]. As a party to the WHO FCTC, Lebanon has an obligation to develop and implement a national action plan to curb tobacco consumption. The GHPSS data can serve as part of the evidence base for monitoring and evaluating progress toward meeting the objectives of the WHO FCTC as well as meeting the overall objectives of the tobacco control program in Lebanon.

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تعاطي التبغ وتدريب اختصاصيي الصحة حول الإقلاع عن التدخين. المسح العالمي لإختصاصيي الصحة حول التبغ، لبنان ٢٠٠٥

موجز- المقدمة : يزداد عدد الوفيات بسبب التبغ حول العالم. قد يساعد اختصاصيو الصحة على الإقلال من تعاطي التبغ عبر إسداء النصائح الى المرضى حول سبل الإقلاع عن التدخين. ثمة القليل من الدراسات التي تشير الى مدى خبرة طلاب الصحة العامة في مواضيع تعاطي التبغ والإقلاع عن التدخين. تهدف هذه الدراسة الى البحث في هذه المسائل إستنادا الى معطيات المسح العالمي لإختصاصيي الصحة حول التبغ في لبنان للعام ٢٠٠٥.

الطرق - يتضمن المسح العالمي لإختصاصيي الصحة حول التبغ في لبنان ٢٠٠٥ راسة تقديرية على المستوى الوطني تشمل طلاب السنة الثالثة في كافة كليات طب الأسنان، والطب، والتمريض، والصيدلة في لبنان.

النتائج - يقدر تعاطي السجائر حاليا ب ١٤,٨٪ لطلاب الصيدلة و ٢٦,٩٪ لطلاب التمريض و ٢٧,٤٪ لطلاب الطب. أما تدخين النرجيلة فتبلغ نسبته ٢٠,٦٪ لطلاب الطب، و ٤٤,٩٪ لطلاب التمريض. ويتعرض ٨ من أصل ١٠ طلاب في الإختصاصات الأربعة الى دخان التبغ غير المباشر في الأماكن العامة.

يؤمن أكثر من ٨ من أصل ١٠ طلاب في كليات طب الأسنان، والطب، والتمريض، والصيدلة بدور اختصاصيي الصحة في إسداء النصائح وإعطاء المعلومات للمرضى حول الإقلاع عن التدخين. وأكثر من ٩ من أصل ١٠ طلاب يعتقدون أن اختصاصيي الصحة يجب أن يحصلوا على التدريب حول تقنيات الإقلاع عن التدخين.

ولكن لا تتجاوز نسبة الطلاب الذين يناهون هذا التدريب ١٩,٨٪ لطلاب الصيدلة و ٤٣,٧٪ لطلاب التمريض.

الخلاصة - نسب تعاطي (التبغ السجائر والأرجيلة) مرتفعة لدى طلاب السنة الثالثة في إختصاصات الصحة العامة في لبنان. يرغب الطلاب في تقديم الإرشادات حول الإقلاع عن التدخين، ولكن ينقصهم التدريب. ينبغي أن تتعاون وزارة الصحة العامة، ووزارة التربية والمؤسسات التعليمية مع غيرها من الشركاء المهتمين، من أجل تطوير واختبار وتطبيق برامج تدريبية فعالة لإختصاصيي الصحة حول الإقلاع عن التدخين.