

RESEARCH COMMUNICATION

Prevalence and Pattern of Dokha Use Among Medical and Allied Health Students in Ajman, United Arab Emirates

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Abstract

Globally, tobacco is considered to be one among the leading causes of death. Dokha is a mixture of Iranian tobacco with aromatic leaf and bark herbs, smoked in a small pipe termed a Midwakh thought to have originated in the Arabian Peninsula. The present study aimed at evaluating the prevalence and pattern of dokha use among Medical University students. Prior to participation in the study, the students were provided with information on the purpose of the study and also assured that confidentiality would be maintained. A self-administered questionnaire was then utilized for collection of data which were processed using Excel spread sheet and analysed using PASW 17. A total of 104 students between 17 and 27 years of age participated, 75% of the respondents being females. The prevalence of dokha smoking was higher among male participants than females. Among dokha smokers, the majority (18.6%) were from the College of Allied Health Sciences. 11.5% reported as being lifetime smokers of dokha and 25% had smoked dokha daily over the past month. We conclude that dokha use among our target population is common and hence favor developmentn of an anti-smoking program for university students.

Keywords: Dokha smoking - midwakh - prevalence - university students

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Introduction

Tobacco is becoming one of the prevalent causes of death across the world¹. Tobacco use is depicted as the risk factor for six to eight leading causes of death such as cancer of lung, kidney, larynx, bladder, stomach, colon, oral cavity and esophagus as well as leukemia, chronic bronchitis, chronic obstructive pulmonary disease, ischemic heart disease, stroke, miscarriage, premature birth, birth defects and infertility (World Bank, 2003). WHO report 2008 states that on continuing the current trend, the tobacco use might lead to more than eight million deaths per year by 2030 and billions of deaths by the end of the century (WHO, 2008). Smoking is recognized to be embedded in the local culture of Arabs (Vine et al., 2009). Reports from United Arab Emirates illustrates that 27% of males and 24% of females use tobacco products such as shisha (waterpipe) and midwakh (Arab pipe), with a majority starting the use at as early an age as 17 years (Vine et al., 2009).

Midwakh an Arabian originated small pipe for smoking “dokha” which could be defined as a sifted preparation of Iranian tobacco mixed with aromatic leaf and bark herbs (CBS Interactive, 2010). Midwakh is found to be common in United Arab Emirates, is traditionally smoked by sailors and is believed to be higher than regular cigarette use with each bowl consisting of 0.5 grams of

dokha (CBS Interactive, 2010). Overall prevalence of dokha smoking in the Northern Emirates of UAE such as Sharjah, Umm Al Quwain, Dubai, Ajman, Ras Al Khaimah and Fujairah was estimated to be 4.2%, with the emirate of Ajman accounting for the highest prevalence (7.8%) (WHO, 2010).

Prevalence of dokha smoking is found to be more among younger generation as it is less bulky, less fragile, and cheaper than cigarettes, satisfies the nicotine craving quicker, is not as disturbing for the smoker’s entourage and reduces the second hand smoke (CBS Interactive, 2010). Youngsters with the habit of tobacco use are three times more likely to indulge in risk behaviors such as alcohol use, eight times more chance of using Marijuana and 22 times increased possibility for the usage of cocaine, compared to non-users of tobacco (CDC, 1994). Among dokha users some of them are found to incorporate some intoxicating substances such as black ants, powdered paracetamol etc. for getting the head rush experience (Gulf News, 2010).

Although the use of dokha has increased its popularity among Emirati population, yet research studies on the effect and awareness of dokha smoking do not exist and other sources of information on dokha are also very limited. Hence, the present study aims at assessing the prevalence and pattern of dokha use among the university students at Gulf Medical University, Ajman, UAE.

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Materials and Methods

This cross-sectional study was conducted in the year 2009 among 104 entry level students in four colleges viz. College of Medicine, College of Allied Health Sciences, College of Dentistry and College of Pharmacy of Gulf Medical University, Ajman, UAE.

The study was approved by the Ethics Committee of Gulf Medical University UAE. The purpose of the study was explained and verbal consent was sought before administering the questionnaire to the participants. All entry year students who were present on the day of data collection were included in the study

A self administered questionnaire was utilized to obtain information from the students on socio demographic characteristics such as age, gender, and course of study. Other information with regard to the dokha smoking habits included the lifetime use of dokha, amount of dokha used during the past 30 days, number of days dokha was smoked etc. The data collected from the participants was fed in the excel sheet and analysed (IBM, Chicago, Illinois) using PASW 17 version.

Results

The present study was conducted among 104 university students aged 17 to 27 years. The mean age of the participants was 19.6 years with a standard deviation

Table 1. Socio-demographic Characteristics

Variables	Group	Number	Percentage
Age (in years)	< = 18	26	25
	> 18	78	75
Gender	Male	26	25
	Female	78	75
Academic programmes	MBBS	42	40.4
	DMD	29	27.9
	BPT	16	15.4
	Pharm D	17	16.3

Table 2. Distribution of Participants Based on Their Dokha Smoking Practice

Variable		Smoke Dokha	
		No.	%
Age (in years)	< = 18	3	11.5
	> 18	9	11.5
Gender	Male	8	30.4
	Female	4	5.1
Courses	MBBS	3	7.1
	DMD	4	13.8
	BPT	3	18.8
	Pharm D	2	11.8
Frequency of dokha smoked in lifetime	<5	4	33.3
	5-25	2	16.7
	26-100	2	16.7
	> 100	4	33.3
Frequency of dokha smoked in the past 30 days	None	6	49.9
	One per day	2	16.7
	2-3 per day	2	16.7
	7-10 per day	2	16.7
Number of days dokha smoked in the past 30 days	Never	6	50.0
	3-5 days	2	16.7
	20-29 days	1	8.3
	All 30 days	3	25.0

of 1.8 years. Table 1 shows the socio-demographic characteristics of the students who participated in the study. The participants comprised of 25% male and 75% female students. The students belonging to different academic programmes such as MBBS, DMD, BPT and Pharm D participated in the study with a majority 40.4% from MBBS.

On assessing the practice of smoking dokha, of the male participants (30.4%) and only 5.1% of the female participants had the habit of dokha smoking. Significantly higher proportion of male participants were found to be dokha smokers as compared to female participants ($p < 0.001$). A high proportion of students enrolled in Physical therapy, Pharmacy and Dentistry were found to be dokha smokers compared to students enrolled in Medicine.

On assessing the quantity of dokha smoked by the participants during their lifetime, 88.5% reported not having used dokha throughout their lifetime. Of the total dokha users, 33.3% reported smoking dokha more than 100 times in their lifetime, whereas 16.7% smoked dokha 26-100 times in their lifetime.

Among dokha users, the frequency of smoking was reported to be more than 7-10 per day in 16.4% of the dokha users during the past 30 days. Fifty percent of the dokha users did not use dokha during the past 30 days.

With regard to number of days that dokha was smoked during the past 30 days, 25% smoked dokha on all days during the past 30 days, whereas 16.7% smoked three to five days in the past 30 days. The details are given in Table 2.

Discussion

In the present study, 9 among 78 students above 18 years of age were smoking dokha. The study revealed that the prevalence of dokha use was higher among male participants compared to female respondents. The prevalence of tobacco use varies greatly among medical students between different countries and also among gender within the same area (Smith and Leggat, 2007). A study conducted among University students shows that majority of the students developed their smoking habit before 12 years of age (Al-Mohamed and Amin, 2010). The study conducted among the students of Jordan University found the prevalence of smoking as 28.6% with a majority (50.2%) of male students indulging in smoking habit than female students (6.5%) (Haddad and Malak, 2002). Another study by Khaimi et al. reported 23% of the students currently using tobacco products in the form of cigarette, pipes or water pipes, among whom majority (63%) were males (Khaimi et al., 2010). Study by Mandil et al. also favored the present study indicating prevalence of smoking to be higher among male university students of Sharjah (Mandil et al., 2007). According to the reports from United Arab Emirates, 24% of males as young as 13 to 15 years and 42% of males aged 17 years are smokers of different tobacco products (Vine et al., 2009).

The present study showed the use of dokha to be higher among students in the Physical Therapy, Dentistry and Pharmacy programmes and least from the Medicine programme, which is in contrast to the study by Saade et

al. which found the prevalence of tobacco use to be higher among dental students rather than medical and pharmacy students (Saade et al., 2009). Reports of 2010 on global health profession signifies a higher percentage of medical and pharmacy students having ever tried tobacco products than students in the Dentistry programme (Government of Peoples Republic of Bangladesh, 2010). A study by Dumitrescu et al. observed that 28.8% dental students of year one, 53.1% dental students of year six using tobacco products while 39.6% of year one medical students and 36% year six medical students smoked tobacco, thus reporting a variance in tobacco use with the year of study (Dumitrescu, 2007). Another pilot study conducted in ten different countries reported that a majority of medical students (such as 43.3% from Albania, 35.5% from Argentina, 36.6% Croatia etc.) were found to be using tobacco (Charles et al, 2005). Study conducted by Hashim et al. report the range of tobacco use as 21% to 25% in both the general population and the university students (Hasim, 2000).

In the present study 11.5% dokha users reported lifetime usage of dokha, among whom 33.5% reported using dokha more than 100 times in their lifetime. The present study also found that 25% smokers used dokha continuously for the past 30 days. A study by Abdul Haque et al. reported 46% male students smoking dokha occasionally while 32% smoked dokha more than 5 times a day The study also reported that 84% dokha smokers also smoke other forms of tobacco such as cigarettes and shisha (Abdul Haque et al.). Another study by Imam et al. stated that 21.5% students used tobacco in smoked or smokeless form in their lifetime, 6.4% students were lifetime users of smokeless tobacco and 1.3% were daily users (Imam et al., 2007). Anti-tobacco measures must be implemented from the entry year of university education, otherwise a deep-rooted smoking culture may persist among the students, thus affecting their future role as health professionals responsible for tobacco control programmes.

In conclusion, in spite of the limitations of self-reporting and a cross sectional survey, this study provides thought-provoking information regarding smoking practices among those significant members who will be joining the health manpower for the future of Public Health in the country. Efforts should be taken to understand the attitude of students on dokha smoking and implement counseling programs which minimize the possibility of smoking and thereby prevent more serious deviations in behaviors such as use of alcohol or other addictive substances.

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