Original Research Article.

Prevalence of Tobacco Use among ALhada Armed Force Hospital Employees at Taif City, Saudi Arabia

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ABSTRACT

Background: Smoking is a major risk factor for many health disorders, and it is considered as one of the most important public health issues in the world. On other hand, it is an important preventable and controllable cause of morbidity and mortality. Healthcare providers who smoke are less likely to advise patients to quit smoking.

Objectives: The aim of this study is to determine the prevalence of tobacco smoking among workers at Al Hada Armed Force hospital in Taif city that will be helpful in providing the stakeholders with a useful insight about this problem.

Subjects and Methods: This descriptive cross-sectional study was carried out at Al Hada Armed Force Hospital. A self-administered questionnaire was used to collect data. The data were analyzed using SPSS version 26.0.

Results: Of the 2221 questionnaires distributed only 1732 returned with a response rate of 78%. The prevalence of smoking among Al Hada Armed Force Hospital is 21.8%. High prevalence of smoking was among males at the age-range of 30-39 years. Looking at education level, smoking was significantly associated with college level. Among the smoker's subjects, higher percentage of smoking was cited by administrative staff 6.7%

Conclusion: The Result of the study suggests that while healthcare smoking habits appear to be high, they are not uniformly low when compared from an international perspective. Health education programs focused on self-efficacy may be an effective tool for reducing the initiation, frequency, and amount of cigarette smoking among healthcare providers.

Keywords: Prevalence, Tobacco, Employees, Saudi Arabia.

INTRODUCTION

Smoking is a major risk factor for many health disorders and it is considered as one of the most important public health issue in the world.[1] On other hands; It is an important preventable and controllable cause of morbidity and mortality.[2] It is a major contributor to ill health, including circulatory disease, cancer and chronic obstructive pulmonary disease.[3] It has been reported that smokers die earlier than nonsmokers.[4]

Although many of the adverse health effects of tobacco occur later in life, smoking has health implications for young people[5] and is associated with other high-risk behaviors among young people including abuse of other drugs, fighting and inappropriate social behaviors.[6]

The trend for tobacco smoking is increasing in the Eastern Mediterranean Region through the use of other forms of tobacco such as water pipe smoking or electronic cigarette. The interrelated causes for these new trends are mostly due to the low cost of tobacco in the region and the ineffective policies of tobacco control.[7]

The prevalence of smoking among health care providers has been shown to vary widely.[8] The WHO has stated clearly that health professionals can have a significant influence on smoking habits.[9] It has been observed that doctors who smoke tend to be more permissive.[10] Health care professionals who smoke are less attend to advise their patients against tobacco use, are less likely to provide anti-smoking educational materials to their patients, and adopt a passive attitude towards smoking.[11] This happens even though health care professionals are usually more aware of the adverse health consequences of cigarette smoking compared to the general population.[12] Medical sciences students, such as doctors, nurses, pharmacists or health administrators, as future health care professionals, can play a major role in preventive programs due to their appropriate knowledge and attitudes.[13]

The study is conducted to determine the prevalence of tobacco smoking among workers at Al-Hada Armed Force hospital in Taif city that will be helpful in providing the stakeholders with a useful insight about this problem.

SUBJECTS AND METHODS

The population of this study was obtained from Al-Hada Armed Force Hospital in the eastern area of the Kingdom of Saudi Arabia. Descriptive Cross-Sectional Study (Prevalence Study), so all hospital staff has participated in this study. A self-administered questionnaire was designed in English based on the reviewed literature. The questions are grouped into 3 sections, the first section comprised general questions directed towards all participants, while the second section comprised questions regarding the smoking habit and directed toward current smokers only. The last section directed toward the history of smoking cessation. The peer reviews by Smoking Cessation Committee at Al Hada Armed Force Hospital have already been done. The pilot study was already conducted then data were coded, validated, and analyzed using the Statistical Package for Social Science (SPSS) for Windows, version 17.0. Descriptive statistics were used to analyze the study variables. Chi-square was calculated. P-value < 0.05 was considered significant. The questionnaire was distributed to the subjects at their working places during a four - week period after obtaining a written permission from research and ethical committee at Al-Hada Armed Force Hospital.

RESULTS

Of the 2221 questionnaires distributed only 1732 returned with a response rate of 78%.

Description of the Study Sample

The results are summarized in Table 1. From 2221 questionnaires distributed only 1732 was returned with a response rate of 78%. The prevalence of smoking among Al Hada Armed Force Hospital is 21.8% (378). The male participants constituted 52.2% (904) while the females were 47.8% (828). Most of the participants age-range were 30-39 comprising 43.4% (753), followed by 20-29 years with 31.1% (537), 40-49years 17.4% (303), 50 years or more 4.8% (83) and the least was below 20 years. Most hospital staff had a bachelor degree level 43.9% (761), followed by those who had associate degree 30.6% (526), secondary school degree 13.8% (241), Master degree 9.6% (167) and the least were those have PhD as 2.1% (37). The medical staff comprised 41.7% (713), the other staff rather than administrative & technical staff was 27.1% (463), administrative staff was 15.7% (268) and the technical staff was 15.3% (262). Out of the 1732 participants, 57.6% (983) were married, single was accounting 40.2% (686), divorced participants constituted 1.3% (23) and widows were 0.8% (14). Most of the health care workers had a salary less than 10000 SR 67.1% (1163), followed by those who gained salary 10000 to less than 20000 SR 20.1% (349), and the least were those with salary 30000 SR or more 5.1% (88). Almost participants were those with other nationality rather than Saudi & Arabic 63.5% (1101), followed by Saudi nationality 27.9% (483) and the least nationality is Arabic as 8.6% (148).

Table 1: Demographic characteristics of study subjects (n=1732)

	Variable	Number	Percentage
Smoking Status	Current Smoker	378	21.8%
	Ex-Smoker	136	7.8%
	Non-Smoker	1218	70.4%
Gender	Male	904	52.2%
	Female	828	47.8%
Age	Less than 20	56	3.3%
	20-29 Years	537	31.1 %
	30-39 Years	753	43.4%
	40-49 Years	303	17.4%
	50 or More	83	4.8%
Education Level	School Level	241	13.8%
	Associate Level	526	30.6%
	Bachelor Level	761	43.9%
	Master Level	167	9.6%
	PhD Level	37	2.1%
Job Type	Medical	713	41.7%
	Administrative	268	15.7%
	Technical	262	15.3%
	Others	463	27.1%
Marital	Single	686	40.2%
	Married	983	57.6%
	Divorced	23	1.3%
	Widowed	14	.8%
Salary	Less than 10000 SR	1163	67.1%
	10000-19999 SR	349	20.1%
	20000- 29999 SR	134	7.7%
	30000 or More SR	88	5.1%
NAT	Saudi	483	27.9%
	Arabian	148	8.6%
	Others	1101	63.5%
Total		1732	100.0%

Table 2: Association between tobacco use history demographic characteristics

	Variable	Smoker	Ex-Smoker	Non-Smoker	P value
Gender	Male	356(20.7)*	122 (7.0)	426(24.5)	.000
	Female	19(1.1)	14(0.8)	795(45.9)	_
Age	Less than 20	20(1.2)	0(0.0)	36(2.2)	_
	20-29 Years	141(8.2)	26(1.5).	370(21.4)	_
	30-39 Years	154(8.9)*	85(4.9)	514(29.6)	.000
	40-49 Years	54(3.1)	6(0.3)	243(14.0)	_
	50 or More	6(0.3)	19(1.1)	55(3.4)	_
Education Level	School Level	89(5.1)	21(1.3)	131(7.5)	_
	Associate Level	177(10.2)*	42(2.5)	307(17.8)	.001
	Bachelor Level	66(3.8)	20(1.2)	675(38.9)	_
	Master Level	20(1.2)	49(2.8)	97(5.6)	_
	PhD Level	4(0.2)	4(0.2)	29(1.7)	_
Job Type	Medical	110(6.5)	93(5.4)	510(29.8)	_
	Administrative	114(6.7)*	12(0.7)	142(8.3)	.000
	Technical	68(4.0)	22(1.4)	172(10.0)	_
	Others	73(4.4)	10(0.6)	380(22.1)	_
Marital	Single	117(7.0)	12(0.7)	557(32.5)	_
	Married	250(15.7)*	120(7.2)	613(34.7)	.006
	Divorced	4(0.2)	4(0.2)	15(0.9)	_
	Widowed	4(0.2)	0(0.0)	10(0.6)	_
Salary	Less than 10000 SR	122(7.3)	96(5.5)	955(54.3)	_
	10000-19999 SR	120(7.2)	21(1.3)	208(11.6)	_
	20000- 29999 SR	90(5.2)	4(0.2)	41(2.3)	_
	30000 or More SR	33(1.9)	15(0.9)	40(2.3)	_
NAT	Saudi	172(10.0)*	63(3.6)	248(14.3)	.008
	Arabian	58(3.3)	22(1.4)	68(3.9)	_
	Others	145(8.4)	51(2.9)	905(52.2)	_

Table 3: Practice and Attitudes among Current Tobacco Users

	Variable	Number	Percentage
Type of Tobacco Use	Cigarette	292	77.9
	Hookah (Shisha)	50	13.3
	Cigarette & Hookah	29	7.5
	Electronic Cigarette	2	0.1
	Others	2	0.1
Age of start smoking	Less than 20 Years	127	33.8
	20 to 24 Years	163	43.5
	25 to 29 Years	46	12.2
	30 to 34 Years	29	7.3
	35 years or More	11	3.2
Cigarette Smoking Per Day	Less than 10	91	28.3
	10-19	122	38.0
	20-29	88	27.4
	30-39	13	4.0
	40 or More	7	2.3
First Cigarette After Awake Up	Less than 10 Minutes	64	20.0
	10 to 29 Minutes	133	41.4
	30 to 59 Minutes	67	20.9
	60 Minutes or More	57	17.7
Caffeinated drinks increase your urge	Coffee	193	51.4
	Tea	102	27.2
	Soft Drink	43	11.6
	More than one type	37	9.8
Factors increase your urge to smoke	Anxiety	116	30.6
	After Meals	193	51.4
	Surrounding Smokers	55	14.7
	Others	12	3.3

The relationship between tobaccos used status with demographical characteristics

When considering the demographic data (Table 2), smoking was significantly (p= .000) prevalent among males at the age-range of 30-39 years. Looking at the education level, smoking was significantly (p=.001) associated with diploma level. Among the smokers subjects, the higher percentage of smoking was cited by administrative staff 6.7% (117/1732) at p=.000, followed by medical staff 6.5 % (110/1732), then other staff 4.4% (73/1732) and the least were technical staff 4% (68/1732). As for the marital status, married subjects showed a higher percentage than other groups at p=0.006. Salary though not significant, showed that there was more smoker who receive salary less than 10000 SR. Saudis showed a significantly higher prevalence of smoking (p=.008) than non-Saudis.

Practice and Attitudes among current tobacco users

When considering about practice and attitudes among current tobacco (Table 3). The most common type of Tobacco use is the cigarette 77.9% (292/375) (p=000), then Hookah as 13.3% (50/375), while 7.5% (29/375) had a combined habit of smoking (cigarettes and Hookah) and the least type, is electronic cigarette 0.1% (2/375). Around half of the number of the smokers 43.5% (136/375) (p=000) started at the age 20 to 24 years old, followed by adolescents 33.8% (127/375), and with increasing the age the percentage was decreased so the least was in the age above 39 accounting for 3.2% (11/375).The majority of smokers 66.3% (213/375) consumed less than 20 cigarette per day (p=.000), then the minority of smokers consumed 40 cigarette or more was accounting 2.3% (7/375).After adjusting for cigarette frequency, the levels of addiction by time to first cigarette were:(< 10 minutes): 20% (64/375); (10-29 minutes): 41.4 %(133/375); (< 1hour): 20.9% (67/375); (≥ 1 hour): 17.7% (57/375).The most caffeinated drinks that increase the urge to smoke is coffee 51.4% (193/375) (p=.000), followed by tea is 27.2% (102/375), then soft drinks as 11.6% (43/375)while 9.8% (37/375) had a combined more than one caffeinated drinks. When asked when you increase urge to smoke, 51.4% mentioned "after meal", followed by 30.6% "anxiety", and14.7% "surrounding smoker".

DISCUSSION

Health professionals play an important role in enhancing tobacco control. As health care providers, they are uniquely positioned to provide patients with information about the harmful effects of tobacco use and assistance in quitting smoking.[10] The prevalence of smoking among Health care workers in the present study (21.8%) was similar to that reported at southwestern in Saudi Arabia (22.6%).[14,15] This condition, besides being a local public health problem, represents a potential barrier in involving this group as the first line for tobacco control.

The present study revealed that males are significantly more smokers than females. A similar trend was reported in previous studies in Saudi Arabia[14,15], Arab countries[16,17], and other countries.[9-11]

Cultural factors may explain gender differences. The WHO Framework Convention for Tobacco Control[1] identifies "the need for gender-specific tobacco control strategies," as well as for the "full participation of women at all levels of policy-making and implementation of tobacco control measures." Thus, we need to foster gender-sensitive tobacco prevention intervention programs,

starting as early as possible. Women should be always encouraged to take proactive roles in building health educational programs to combat smoking. In concurrence to results reported by Jarallah et.al. (1999), our results displayed a high prevalence of smoking among married individuals.[19] It also indicated that a possible association between level of self-rated stress. Smoking has been reported to impact the psychological well-being.[20]

The majority of the sample was consuming less than 20 cigarettes per day. This may point out the relatively low smoking prevalence and consumption of our sample when compared to universal prevalence and figures obtained from the Saudi population.[12,18,20] On Other hands; Nowadays the taxes about smoking product is high rather than any time, this is point can explain the decline of cigarettes consuming. This mean as the stakeholders should increase taxes and financial penalties to help us for quit smoking programs.

Consequently, there is a reasonable opportunity for smoking interventions. More health awareness is required among health professionals and our general population. Programs and activities should be implemented as early as in the elementary school. The impact of films and cigarettes advertising should be acknowledged and used in the proper direction. Tobacco control laws and policies should be implemented. Tobacco cessation clinics should advertise it more widely and expand its service to reach schools.

There is a need for national intervention programs in the country in a tailored manner for health care workers to control tobacco use parallel to the running national program. These interventions should begin early in basic medical education and to be applied continually during one's medical career, taking into account different determinants of smoking habits among health care workers. On other hands, we should start with smoking cessions through counseling manner and apply the interventions to decline this habit among health care workers.

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