

## ARTICLE

# Smoking Prevalence, Attitudes and Behaviors of Primary Healthcare Providers and its Impact on Their Smoking Cessation Counseling Practices

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## Abstract

**Background:** Despite the great efforts done by the government, there has been an increase in the number of people adopting smoking habit, among them health care professionals. **Objectives:** The aims of this work are 1) to assess the attitudes, behaviors, and risk perceptions among primary health care providers in the ambulatory health services in Abu Dhabi towards smoking and 2) to assess the impact of their smoking status on their practices of smoking counseling. **Rationale:** The justification of the research was that it provides an understanding on the influence of the smoking behaviour of health care providers and their eventual service delivery especially counselling smoking patients. **Subjects and Methods:** Self-administered descriptive questionnaires were used to collect data. They were distributed to doctors and nurses who consented to participate and the filled questionnaires were collected in sealed envelopes. Out of 137 health care professionals who were approached, 122 responded (participation rate of 89

%). 47% were physicians and 53% were nurses. **Results:** The results showed that, among the studied group the rate of smoking was 8.3 % with influence from friends being cited as the greatest contributing factor. Cigarette smoking was used by the 87.5% of the participants and 25% used “Shisha”. Irrespective of its adverse effects, most of healthcare providers have a positive attitude towards smoking cessation policy. An inadequacy in training these personnel on how to counsel their patients with regard to smoking cessation. **Conclusion:** A pre-service as well as continuous smoking cessation training is needed in order to change the attitude of the primary health care providers and enhance their counselling techniques.

**Key words:** Smoking Cessation, Smoking, Health Care Professionals, KAP Analysis,

## Introduction

Smoking has become prevalent among both sexes worldwide

regardless of their age. However, it is still considered a life threatening habit based on its associated adverse health issues (1). To avert this, there have been widespread campaigns geared towards encouraging people to stop smoking. Smoking cessation represents an important health issue for both public health policy regulators and primary healthcare providers. According to the World Health Organization (WHO), tobacco smoking kills half of its users, with one tobacco associated death occurring in every 6 seconds (1). Additionally, the highest numbers of health complications are associated with smoking. It is estimated that the death toll can rise to more than eight million in the year 2030 (1). This surpasses deaths resulting from any other disease. This can be explained by its potential to cause health related complications, among them cardiovascular diseases, respiratory diseases and cancer (2). Healthcare providers play a key role in the prevention of tobacco smoking as well as counselling patients to stop smoking (3). Nevertheless, smoking has been prevalent among healthcare providers in many nations. Smoking among health professionals acts as a setback in the campaign among patients (4). Many patients may see it as not life threatening if those who are well versed with its risks continue to smoke. Most patients consider their healthcare providers as their most trusted source of knowledge and guidance on health matters (5). Healthcare providers in the primary care sector in particular are considered as community leaders and role models. The nature of their job exposes them to a significant number of the population whom they can influence and cause a change in their behaviour, especially in smoking cessation (5). It has been established that healthcare providers have the greatest potential to influence the society in regards to reduction of tobacco usage. Equally, when patients are provided with the appropriate support and guidance, many will quit regardless of their addiction level. International studies have shown that smoking among healthcare providers significantly determines how they address issues related to smoking with their patients (1).

Previous work have demonstrated that smoking healthcare providers are less likely to ask their patients about smoking, or advise smoking cessation or provide evidence-based support when compared to their non-smoking colleagues (6,7). A recent study showed that the prevalence of smoking was 11% among United Arab Emirates (UAE) nationals living in Abu Dhabi (8). The prevalence rate of smoking physicians in UAE is 33.6% (9). Lower rates of tobacco usage among physicians were reported in neighbouring countries with rates of 31%, 23%, 14.2%, 12% and 11%

in Kuwait, Bahrain, Saudi Arabia, Qatar, and Oman respectively (9,10). In countries where there has been a great public health promotion against smoking such as Canada, USA, Sweden, Australia and UK, physician smoking rates have been found to be very low. In many other countries it has been found that the smoking physician rate is similar to that of the general population (5,11). The success of ceasing smoking depends on ability to overcome addiction that is caused by nicotine (12).

WHO considers smoking cessation extremely more cost-effective compared to other preventive interventions (1,3). Quitting smoking greatly reduces cardiovascular morbidity and mortality and the risk of developing smoking-related diseases such as stroke and lung cancer. There are limited data on these aspects of practice in our part of the world. We have therefore wished to ascertain the Prevalence of smoking and the attitudes, behaviors, and risk perceptions toward smoking amongst primary care physicians in Abu Dhabi and to evaluate the impact of these factors on their practices of smoking counseling.

## **Subjects and Methods**

### ***Study objectives***

It is hypothesized that smoking is common among primary healthcare providers and the most common method of smoking is cigarettes. Primary healthcare providers who smoke are less likely to address smoking and to counsel the patients about smoking cessation. Currently, there is no data on the Prevalence and pattern of smoking habits among primary healthcare providers in Abu Dhabi. The aim of this study is to estimate the smoking Prevalence among primary healthcare providers in the ambulatory health services in Abu Dhabi Island in 2013 and to assess their attitudes, behaviours, and risk perceptions toward smoking. In addition, to evaluate the association between the smoking status and their practices of smoking counselling.

### ***Study design and setting***

The study protocol was approved by Institution Review Board, Sheikh Khalifa Medical City in Abu Dhabi, UAE. All participants gave an informed written consent before taking part in study. The study was conducted at 5 primary health care centres in Abu Dhabi Island (Al Bateen, Ettihad, Al-Khaleej, Zafaranah and Rowda). All participants completed a self-administered questionnaire anonymously. It took 15 minutes to complete. The participants were assured of the strict confidentiality during conduct of the study.

### ***Selection of study population***

This is a census study and all PHC providers (doctors and nurses) that were in service for at least one year in the 5 Primary Healthcare Centres were included. Out of 137 HCP, 15 declined participation and 122 completed the study (57 doctors and 64 nurses). The study spanned over full calendar year. Participation rate was 89%. Scoring was provided for sections 3 and 6 of the questionnaires.

### ***The questionnaire***

A modified version of the Global Health Professional Survey (13) was used. It included a total of 35 questions with 5 categories: 1) Socio-demographic characteristics of the provider 2) Tobacco use (age of start, duration, influence, type), 3) Attitude of PHC providers towards smoking cessation policy, 4) Worksite practice and 5) Behaviour and preparedness towards smoking cessation activities. The questionnaires were sealed in opaque envelopes and delivered to the doctors and nurses via their line managers. The questionnaire were self-administered and were filled out by the doctors and nurses a returned in confidence (in sealed opaque envelopes).

### ***Data analysis***

Microsoft Excel was used for data collection. SPSS program for data analysis. P value below  $p < 0.05$  was accepted as significant.

## **Results**

### ***Demographics and smoking practices***

Participants were fairly split between physicians and nurses (47.1% and 52.9% respectively). 79.5 % were females and 31.1% of the whole sample were in the age category 31-40 (Table 1). Less than quarter were Emiratis and over three quarters were married. 8.3% were smokers and 3.3% were ex-smokers and the majority (88.4%) were non-smokers. Factors considered influencing towards smoking reported as friends by 75%, family by 37.5% and personal choice by 25% of heal care providers. Cigarette smoking was the most common form of smoking (87.5 %) followed by shisha in 25% of smokers. 75% of smokers have been smoking for more than 10 years and 25% smoked for less than 5 years. 57.1% of the smokers smoke 1-10 cigarettes per day and 42.9% smoke 11-20 cigarettes per day. 66.7% of the smokers have not try to quit smoking during the past 12 month (Figure 1A). 11.1% never quit smoking for a minimum duration of 1 month (Figure 1B).

### ***Health care providers' attitude to smoking***

Table 2 illustrates the attitude of primary health care personnel towards smoking cessation policy, regardless of their smoking status. The majority 76 of the 122 (62%) PHC personnel strongly disagreed that smoking was a personal matter and could be performed at any time or

**Table 1.** Socio demographics of the Study Sample (N=122)

Variable	Detail	N	(%)
Gender	(Male/Female)	25/97	20.5/79.5
Age Groups (years)	20 – 30	22	18
	31 – 40	38	31.1
	41 – 50	37	30.3
	> 50	25	20.5
Occupation	Physician/Nurse	57/64	47.1/52.9
Nationality	Emirati/ Non-Emirati	29/93	23.8/76.2
Marital Status:	Single	22	18
	Married	94	77
	Divorced	4	3.3
	Widow	2	1.6

**Table 2.** Attitude of primary health care providers towards smoking (N=122)

	Strongly agree (%)	Agree (%)	Unsure (%)	Disagree (%)	Strongly disagree (%)
Smoking is a personal matter and can be performed at any time or place	8.3	7.4	0	22.3	62
Smoking in enclosed public places should be prohibited	82.5	15	0	0	2.5
There should be a complete ban on the advertising of tobacco products	73.3	16.7	2.5	3.3	4.2
The price of tobacco products should be increased sharply	58.3	20	13.3	7.5	0.8
Hospitals and health care centres should be smoke free	88.3	5.8	0	0	5.8
Patients chances of quitting smoking are increased if a health care provider advises him/her to quit	45.8	32.5	15	5	1.7
Smoker would not stop smoking even if there advised about cessation	3.4	42	15.1	28.6	10.9
Health care providers who smoke are less likely to advise patients to stop smoking	23.3	43.3	16.7	10.8	5.8
Special smoking cessation clinic are the best for smoking control activities	37.5	47.5	11.7	3.3	0
All health team members are responsible for providing tobacco control activities	45.8	46.7	6.7	0	0.8

**Table 3.** Behaviour towards smoking cessation activities

	Never (%)	Occasional (%)	Always (%)
Do you ask the patient their tobacco use?	4.9	45.9	49.2
Do you assess the quantity of the patient's tobacco use?	11.5	48.4	40.2
Do you advise the patient to quit tobacco use?	4.2	25.8	70

place and 101 of the 122 (82.5%) PHC personnel strongly agreed that that smoking in enclosed public places had to be prohibited. Also 73.3% of the health care providers strongly agreed that there had to be a complete ban on the advertising of tobacco products and only 58.3% of them strongly agreed that the price of tobacco products had to be increased sharply. The majority of healthcare providers 88.3% strongly agreed that healthcare hospitals and centers had to be smoke-free. The study also shows that, only 45.8% PHC personnel strongly agreed that patient chance of quitting smoking was increased if a health care provider advised him/her to quit and that 42% of the PHC personnel

in this study believed that smoking patients would not stop smoking even if they were advised to quit. 43.3% of the participants agreed that health care providers who smoked were less likely to advise patients to stop smoking. On the other hand, 47.5% of the PHC personnel agreed that special smoking cessation clinic were the best for smoking control activities and 46.7% agreed that all health team members were responsible for providing tobacco control activities. Majority of the PHC personnel (82.8%) regardless of their smoking status had positive attitude, 14.8% neutral and 2.5% negative attitude towards smoking cessation policy. It was also observed that 24.8% of the PHC personnel

Table 4. The degree of preparedness and interest towards smoking cessation activities (n=117)	
How do you assess the degree of preparedness to counsel patients regarding smoking cessation? (n=117)	
Questions (N)	(%)
Very well prepared	22.2
Somewhat prepared	67.5
Not at all prepared	10.3
Are you interested in receiving training in counselling skills? (n=118)	
Questions (N)	(%)
Very interested	63.6
Somewhat interested	31.4
Not interested	5.1

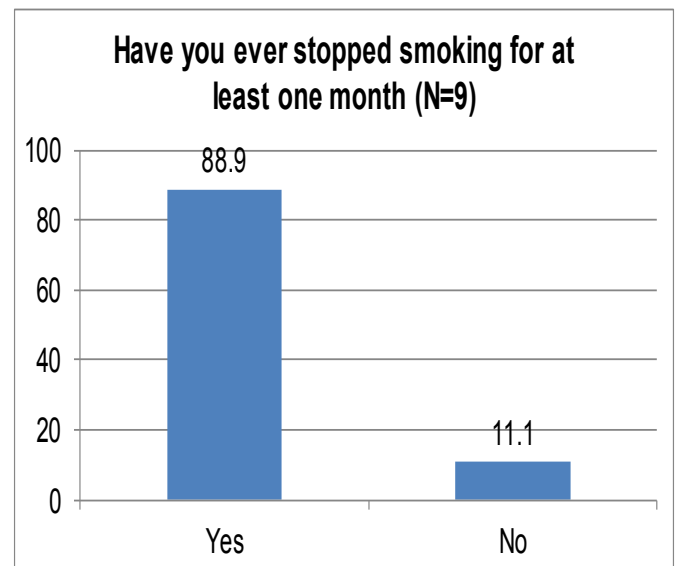
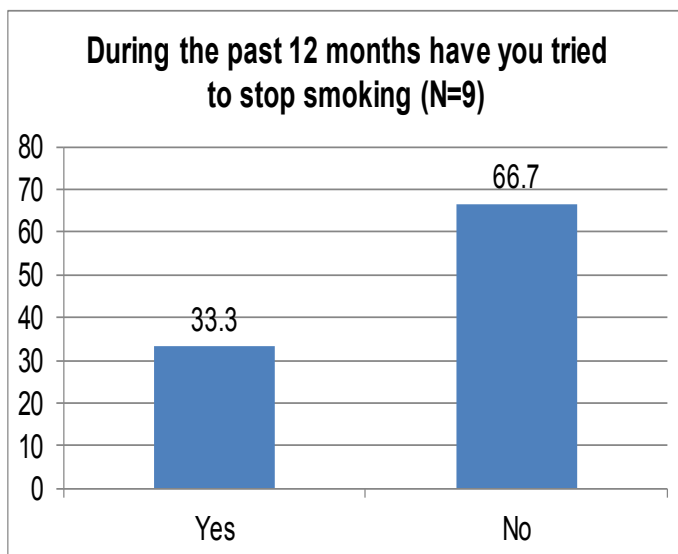


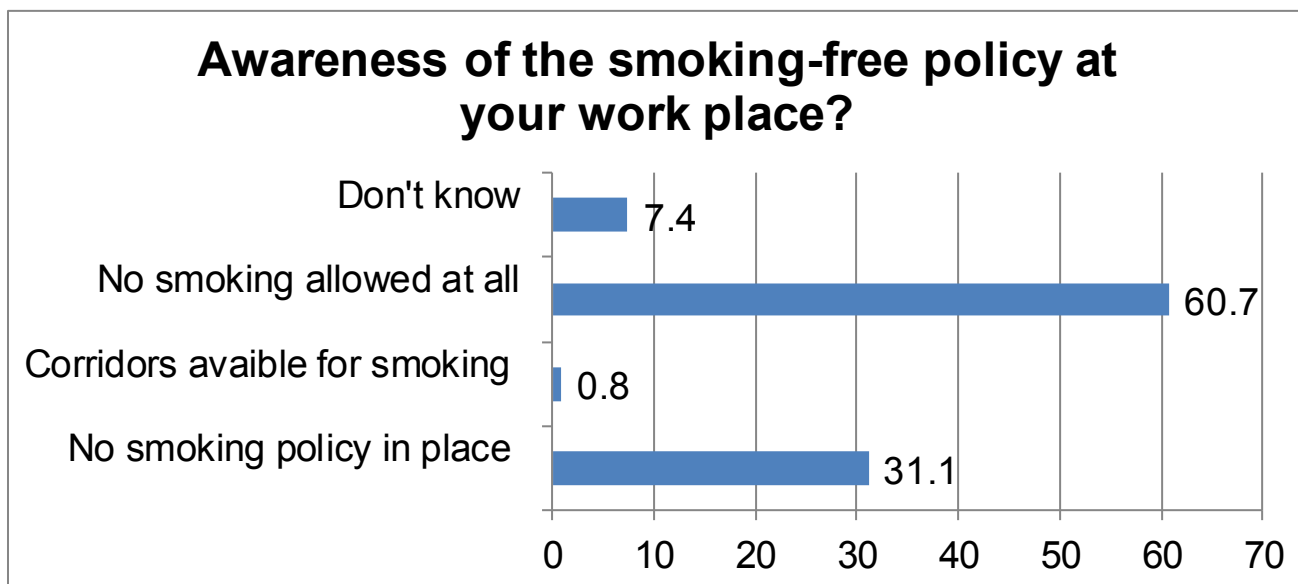
Figure 1. PHC health care providers’ own practices in attempting to quit smoking

regardless of their smoking status never heard or seen the smoke-free policy of HAAD. 7.4% of the PHC personnel regardless of their smoking status didn’t know what the smoke-free policy at their work place was. 12.4% of the PHC personnel regardless of their smoking status didn’t know whether the smoke free policy was enforced. 72.1% of the PHC personnel have not received specific training on smoking cessation (Figure 2). The most common intervention that was available for the PHC personnel to help patient to quit smoking was brief counselling (70.5%), followed by self help material (61.5%) and medication

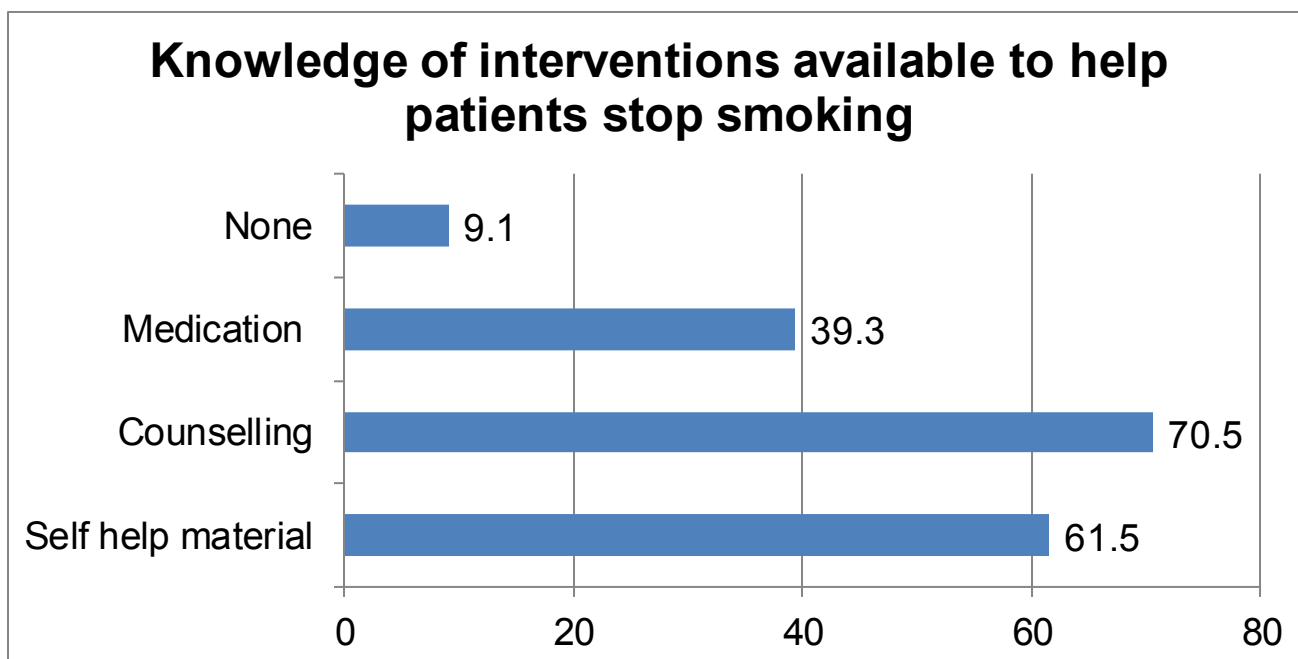
(39.3%) (Figure 3).

**Smoking counselling behaviour**

Table 3 illustrates the behaviour of the PHC personnel regardless of their smoking status towards smoking cessation activities. Only half of the PHC providers (49.2%) always asked the patient about tobacco use and 40.2 % routinely assess the quantity of the tobacco use. Based on figure 13 majority of PHC personnel (91%) regardless of



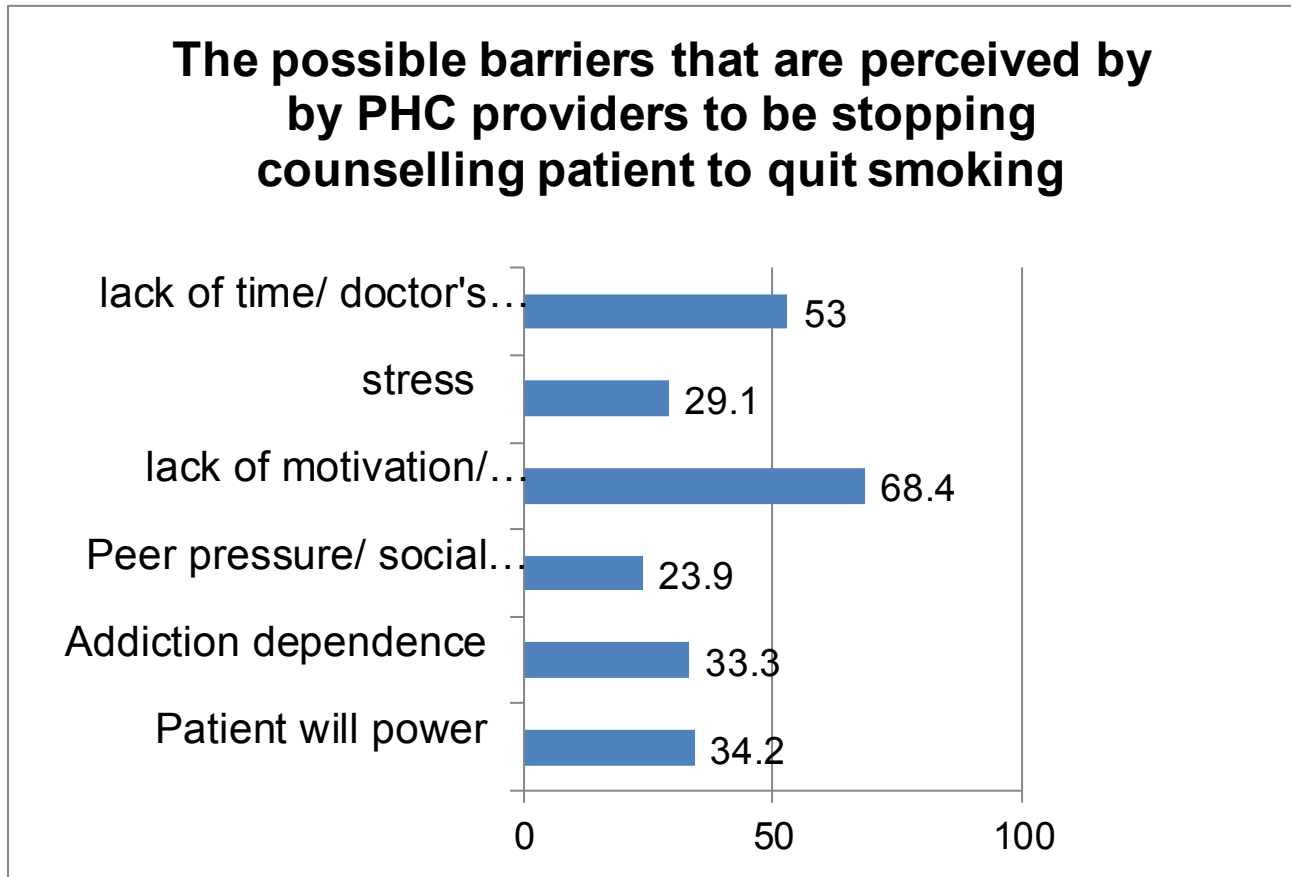
**Figure 2.** Awareness of the 112 HCP of the smoke-free policy at their workplace. Numbers shown are percentage of affirmative responses per question.



**Figure 3.** Knowledge of 121 HCP on the interventions that are available in helping patients quit smoking. Responses are expressed as percentages of affirmative responses per intervention.

their smoking status had a good behaviour towards the 3A's smoking cessation counselling. The five biggest barriers to helping patients stop smoking, PHC providers identified lack of motivation/patients not interested (68.4%), lack of time/doctor work load (53%), patient will power (34.2%), addiction / dependence (33.3%) and peer pressure /social acceptability (23.9%) most frequently (Figure 4). Table

4 demonstrates the degree of preparedness and interest towards smoking cessation activities. The majority of the PHC providers (67.5%) regardless of their smoking status were somewhat prepared to assess the degree of preparedness to counsel patients regarding smoking cessation and 10.3% were not at all prepared. Only 63.6% of PHC personnel were very interested in receiving specific



**Figure 4.** The possible barriers that identified by 117 PHC providers to be stopping counselling patient to quit smoking. Responses are expressed as percentages of affirmative responses per item.

training on smoking cessation.

### Discussion

In the present study, a quantitative, descriptive, questionnaire-based cross-sectional design was used to determine the prevalence of smoking among the primary healthcare providers. The attitudes and behaviour among the primary healthcare providers and their impact on smoking cessation counselling were all adequately captured by this questionnaire. The questionnaires used was a modified version of the GHPS established by the WHO (13). Furthermore, a pilot study assessed the appropriateness, clarity and comprehensiveness of the questionnaires. A high degree of privacy was applied to encourage participation. A high participation rate of 89% suggests possible generalization of the conclusions. The frequency of rate of current and previous smoking among PHC providers in the present study was relatively low. In comparison to other countries being in the order of 65% in

Jordan; 45% in Alexandria, 45% in Saudi Arabia and 8.6% in Bahrain (14-17). In another study from Saudi Arabia, smoking amongst primary health care professionals was low (8.3%) but in general the authors thought that professions were not up to the expected level of healthy lifestyle parameters (18). The authors suggested that these health care professionals in the primary care setting and in other health facilities need to be targeted by health promotion programs for their own health benefits, and better role modeling for their patients.

In the present study, there were no differences between the smoking and non smoking groups in terms of age, gender, occupation and ethnicity. Previous some studies conducted in Arab countries revealed that male medical and paramedical staff smoke more often than female counterparts (14-17). Cultural factors may explain the gender differences as a reflection of the background differences in societies within the Middle East and North Africa (MENA)

region (19). The high smoking prevalence among married people observed in our study, has serious impact resulting in a greater risk of smoking initiation among children and other family members and the more adverse health effects of passive smoking among those in the same household. This can be inferred from the findings that participants ranked influencing factors of friends, family and personal at the top. Similarly, one of the strongest risk factors for smoking is exposure to peers, especially close friends, who smoke, with relaxation being the most important reason for continuing smoking (16). The most common type of smoking was cigarettes 87.5% followed by shisha 25%. Just over half of the smokers smoked 10 or less cigarettes per day and 42.9% smoked between 11-20 cigarettes per day. In the current study, two thirds of the smoker PHC providers have not tried quit smoking during the past year and more than tenth never abstained from smoking for any one month in their life time. In the current study, only less than tenth of smokers strongly considered smoking as a personal matter and could be performed at any time and place. Just over half of participants regardless of their smoking status strongly thought that smoking should be prohibited in public places, there should be a complete ban on the advertising of tobacco products and that the price of tobacco products should be sharply increased. Despite the recent increase in tobacco taxes, cigarettes are still very inexpensive in the UAE compared with other countries. Even people on low income and young children can obtain cigarettes at low cost.

It is perhaps promising that the majority of the PHC providers had a positive attitude towards smoking cessation policy regardless of their current smoking status although predictably more amongst the non-smokers. Furthermore, non-smokers had better attitudes towards smoking cessation than the current smokers. Surprisingly, a good percentage of the PHC providers regardless of their smoking status were not aware of the smoke-free policy of their health care regulator (HAAD) and over 70% the PHC providers had never received effective raining to counsel their patients on smoking cessation. Available smoking cessation interventions included self-help materials, counseling and medication. In this study, 91.7% of PHC providers had good behavior towards the 3 A's of smoking cessation counselling. However, less than half of PHC providers routinely asked their patients about smoking habits and even less assessed the quantity of tobacco use. PHC providers above 50 years of age compared to other age groups were more likely to ask their patient about tobacco use, assess

the quantity of tobacco use, and advise their patient to quit smoking. This may simply reflect impact of greater clinical experience.

Health care providers identified lack of motivation/patients not interested, lack of time/doctor workload, will-power of patients and addiction/dependence and peer pressure/social acceptability in decreasing frequencies. However, physicians were more likely than nurses to identify lack of time/doctor workload as barriers to helping patients to stop smoking. Although only 22.4 % of PHC providers found themselves very well prepared to counsel their patients about smoking cessation. This leaves a room for improvement in both time and skill particularly that over 60% of PHC providers found themselves very interested in receiving specific training on smoking cessation (20). Indeed a recent study on medical students in Saudi Arabia indicated a need for cessation counselling and training to be incorporated into medical school curriculum (21).

This is the first study to provide data on the prevalence and pattern of smoking habits among primary healthcare providers in Abu Dhabi using a validated questionnaire with a high response rate. However, the small sample size and being a cross sectional study and the effect of recall bias are limiting factors. We conclude current smoking among PHC personnel was is low and mostly involves cigarettes smoking. Most of the smokers are established for more than 10 years. The majority of PHC personnel regardless of their smoking status had positive attitudes towards smoking cessation policy. There was deficient training of health team members regarding smoking cessation and only a small proportion of them felt that they were very well prepared to counsel their patients about smoking cessation. We recommend 1) Continuous medical education to all health care workers in smoking cessation, aiming at improving their knowledge, changing attitudes, and improving practices. 2) Smoking cessation programs should be introduced among health professionals to reduce smoking prevalence among them, therefore presenting themselves as good role models for their communities. 3) Smoking cessation activities should be an integral part of the already existing PHC system, and to be provided by all PHC staff at every clinic visit, including asking about tobacco use, assessing willingness to quit, advising quitting and arranging for cessation services.

## References

1. World health organization (WHO). Tobacco Fact sheet



- N°339; 2012 [cited 2015 march 3]. Available from: <http://www.who.int/>.
2. Centre for Disease Control and Prevention (CDC). Health effects of cigarette smoking. 2014 [cited 2015 march 3]. Available from: <http://www.cdc.gov/>.
  3. Centre for Disease Control and Prevention (CDC), 2001. Physician and Other Health-Care Professional Counselling of Smokers to Quit - United States 1991. 2001 [cited 2015 march 3]. Available from: <http://www.cdc.gov/>.
  4. Holford TR, Meza R, Warner KE, Meernik C, Jeon J, Moolgavkar SH, Levy DT. Tobacco control and the reduction in smoking-related premature deaths in the United States, 1964-2012. *JAMA* 2014;311(2):164-71.
  5. World health organization (WHO). Tobacco Free Initiative (TFI).WHO. 2014 [cited 2015 march 3]. Available from: <http://www.who.int/>.
  6. Barengo NC, Sandström HP, Jormanainen VJ, Myllykangas MT. Attitudes and behaviours in smoking cessation among general practitioners in Finland 2001. *Soz Praventivmed* 2005;50(6):355-60.
  7. Squier C, Hesli V, Lowe J, Ponamorenko V, Medvedovskaya N. Tobacco use, cessation advice to patients and attitudes to tobacco control among physicians in Ukraine. *Eur J Cancer Prev.* 2006;15(5):458-63.
  8. Health Authority Abu Dhabi. 2012. Health Statistics. Abu Dhabi. 2011 [cited 2015 march 3]. Available from: <http://www.haad.ae/>.
  9. Bener A, Gomes J, Anderson JA, Abdullah S. Smoking among health professionals. *Med Educ* 1994;28:151-7.
  10. Al-Lawati JA, Nooyi SC, Al-Lawati AM, Knowledge, attitudes and prevalence of tobacco use among physicians and dentists in Oman. *Ann Saudi Med* 2009;29(2):128-33.
  11. Smith DR, Leggat PA. An international review of tobacco smoking in the medical profession 1974–2004. *BMC Public Health* 2007;7:115.
  12. Luty J. Nicotine addiction and smoking cessation treatments. *Advances in Psychiatric Treatment* 2002;8:42-48.
  13. Warren CW1, Jones NR, Chauvin J, Peruga A; GTSS Collaborative Group. Tobacco use and cessation counselling: cross-country. Data from the Global Health Professions Student Survey (GHPSS), 2005-7. *Tob Control.* 2008;17(4):238-47.
  14. El khushman HM, Sharara AM, Al-Laham YM, Hijazi MA. Cigarette smoking among health care workers at King Hussein medical center in Jordan. *J Hosp Med* 2008;3(3):281-4.
  15. Sabra AA. Smoking attitudes, behaviours and risk perceptions among primary health care personnel in urban family medicine centres in Alexandria. *J Egypt Public Health Assoc* 2007;82(1-2):43-64.
  16. Siddique S, Ogbeide DO. Profile of smoking health staff in a primary care unit at a general hospital in Riyadh , Saudi Arabia. *Saudi Med J* 2001;22(12):1101-4.
  17. Borgan SM, Jassim G, Marhoon ZA, Almuqamam MA, Ebrahim MA, Soliman PA. Prevalence of tobacco smoking among health-care physicians in Bahrain *BMC Public Health* 2014;14:931.
  18. AlAteeq MA, AlArawi SM. Healthy lifestyle among primary health care professionals. *Saudi Med J* 2014; 35(5):488-94.
  19. Khattab A, Javaid A, Iraqi G, Alzaabi A, Ben Kheder A, Koniski ML et al. BREATHE Study Group. Smoking habits in the Middle East and North Africa: results of the BREATHE study. *Respir Med* 2012;106(Suppl 2):S16-24.
  20. Kottke TE, Battista RN, DeFriese GH, Brekke ML. Attributes of successful smoking cessation interventions in medical practice: a meta-analysis of 39 controlled trials. *JAMA* 1998;259:2883-9.
  21. Almutairi KM. Prevalence of tobacco use and exposure to environmental tobacco smoke among Saudi medical students in Riyadh, Saudi Arabia. *J Community Health* 2014;39(4):668-73.