

Original article

**STATUS OF FAMILY PHYSICIAN'S AWARENESS
ABOUT TOBACCO SMOKING HAZARDS AND
CESSATION**

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ABSTRACT

Introduction:

Repeated advice to quit smoking delivered routinely to all smokers seen in office practice increases the rates of smoking cessation. The optimal knowledge of family physicians regarding various tobacco issues like smoking hazards and existing cessation is of utmost importance.

Objective:

The objective of the study was to assess the existing status of family physicians awareness about tobacco related issues, smoking hazards and cessation strategies.

Material and Methods:

Family physicians practicing in various localities of Lahore were surveyed through questionnaire performa, to assess their general knowledge regarding tobacco smoking. Questionnaires were distributed on the occasion of two scientific presentations as well as by directly approaching them at their clinics.

Results:

A total of 124 questionnaires were given and 100 were returned with a response rate of 80.64%. Thirty one percent were cigarette smokers themselves. Most physicians (73%) could not calculate the smoking pack years and the same percentage had a poor knowledge regarding number of chemicals in the tobacco smoke. Only 22% of the participants could correctly name 5 hazards of tobacco smoking. Regarding smoking cessation, 58 percent considered gradual tapering better while remaining favored sudden stoppage. Fifty nine percent had a poor knowledge of pharmacological management for smoking cessation, 36% had fair and only 5% had good knowledge. Sixty one percent of the participants had never prescribed a medication for smoking cessation while 80% agreed for cessation counseling. Thirty eight percent did not know of a single hazard associated with passive smoking and only fifty two percent correctly responded about the contents of shisha/water pipe. Senior physicians, postgraduate diploma holders and those involved in public hospital practice had a better understanding and knowledge.

Conclusion:

These results indicate that there are major gaps of basic knowledge about the tobacco

smoking hazards and cessation strategies including behavioral and pharmacological treatment among the family physicians of Lahore.

Efforts are needed to improve upon this and thus utilize fully the power of primary health care providers in the fight against tobacco-related morbidity and mortality.

Key words: Family physicians, Tobacco smoking hazards, Shisha / water pipe

INTRODUCTION:

The health hazards of tobacco smoking among the medical community and general population are well known. Tobacco use is estimated to cause 5.4 million deaths annually and if present trends continue, this toll is projected to rise to over eight million deaths per year by 2030, with 80 percent of those deaths occurring in the developing world where tobacco use is increasing^{1, 2, 20}. One out of every two to three middle-aged men in Pakistan smoke cigarettes and this habit is adversely affecting their health^{3, 4}. The smoking patterns among adults have been shown to differ across ethnic groups⁵. There is need for targeted smoking prevention and cessation materials as a means of achieving greater success in the fight against tobacco-related morbidity and mortality⁶. One tobacco control strategy that has proven effective is smoking-cessation intervention on the part of a health-care provider^{7, 8}. Caregivers are a logical focus for the delivery of smoking-cessation interventions for a variety of reasons, including their dedication to the promotion and maintenance of good health, their high profile and respected position in society, and their significant access to tobacco smokers. If the family physicians have ample knowledge regarding hazards of tobacco smoking and the use of behavioral and pharmacological approach for cessation, the growing epidemic of tobacco could be curbed down.

METHODS:

A cross-sectional survey of family physicians practicing in the metropolitan Lahore was conducted. The survey instrument was designed to assess the existing status of family physicians perception about tobacco smoking related issues including hazards and

cessation strategies. A performa was designed and given to the family physicians to respond by spontaneous answers to the simple questions in the questionnaire. (See Annex 1) The questionnaire performa was given to them before two scientific seminars conducted on 'Pneumonia management' and 'Extrapulmonary Tuberculosis'. Others were directly contacted at their clinics. The two-page questionnaire included ten items; a short, simple format was maintained in the interest of reducing respondent burden. Confidentiality of responses was assured. The 10 questions in the study performa consisted of; calculation of smoking pack years, estimation of number of chemicals in a cigarette, naming any five hazards of tobacco smoking, three hazards of passive smoking, choosing between cold turkey versus gradual reduction strategy for cessation, knowledge and use of any medication or counseling for smoking cessation, doctor's own smoking habits and about the contents of shisha or water-pipe. The questionnaires were collected back when they were filled willingly and assuring avoidance of peer discussion. At the clinics, again it was requested to the participants to spontaneously fill and return the questionnaires.

RESULTS:

A total of 124 questionnaires were given and 100 were returned with a response rate of 80.64%. They were 93 male and 7 female respondents. All of the family physicians were qualified MBBS; 13% were post graduate diploma holders (DTCD, DMRD, DA, DCP, MPH, DCH and Dip. dermatology) while 12% had done their fellowships (FCPS Orthopedics, FCPS Surgery, FCPS Medicine, MRCP, FRCGP, MRCGP) . Most of the family physicians (77%) were self employed, running their own clinics and 23 % of them were doing both government hospital job and private practice. (Fig 1)

Among these family physicians 69% were non smokers while remaining 31% were cigarette smokers. Seventy three percent respondents did not know how to calculate smoking pack years. Same number had a poor knowledge regarding the large number of chemicals in the tobacco smoke; 16% had good knowledge and 11% fair knowledge, knowing that the chemicals in a cigarette are in thousands. Regarding the question of naming any five hazards of tobacco, only 22% could correctly name five hazards while

14% correctly named four hazards, 16% three hazards, 23% two hazards, 10% one hazard and 15% could not name even a single hazard associated with tobacco smoking.

Regarding smoking cessation, fifty eight percent considered gradual tapering number of cigarettes to be the preferred strategy while 42% favored cold turkey approach. When asked about the pharmacological treatment useful in smoking cessation, fifty nine percent of these practitioners were not aware of a single pharmacological management, 36% had fair knowledge who considered nicotine gums, tablets and patches to be among the most effective cessation methods and only 5 of them knew about bupropion and varenicline besides nicotine replacement treatment. Thirty nine percent said that they prescribed a drug for smoking cessation while thirty six percent knew about nicotine gums and three of them prescribed ordinary candy gums. Sixty one (61%) of the participants never prescribed a medication for smoking cessation though eighty (80%) agreed they provided verbal advice/counseled their patients to quit smoking.

Knowledge about passive smoking was also dismal; 38% did not know of a single hazard, 18% knew of one hazard, 21% could name two hazards and 23% of the physicians correctly answered three hazards associated with passive smoking. The last question regarding the contents of the newer tobacco trend of shisha/water pipe smoking was correctly answered by 52% knowing it contains tobacco which is flavored while 46% believed it contains fruit flavors only and 2% answered for its composition to be tobacco alone.

Regarding the distribution of age and the education status, it was seen that most of the physicians of < 34 and those >44 years of age were mainly qualified as MBBS and between 35 to 44 years group consisted mainly of MBBS but most of the diploma holders and postgraduates were concentrated in this age group. (Table 1)

The association of doctors' age with their knowledge about tobacco smoking hazards and cessation revealed that senior family physicians had a better knowledge regarding tobacco hazards ($p= 0.076$), knowing tobacco cessation medications ($p= 0.023$), passive smoking hazards ($p= 0.075$), more prescriptions of anti smoking medications ($p= 0.033$) and they counseled their patients more as compared to the younger age group ($p= 0.020$).

The association was insignificant for their knowledge about calculation of pack years, estimating number of chemicals in a cigarette, choosing between cessation strategies, their self smoking habit and regarding the contents of shisha / water pipe smoking.

The association of education with knowledge about tobacco smoking hazards and cessation revealed that physicians possessing postgraduate degrees had a better knowledge regarding 5 tobacco hazards ($p= 0.016$) and there was a minimal number of cigarette smokers in this group ($p= 0.084$). However the association was insignificant for their knowledge regarding other parameters. Physicians working in government hospitals (and private clinics) had a better knowledge of smoking pack years calculation ($p= 0.005$), possessed better knowledge regarding 5 tobacco hazards ($p= 0.014$), passive smoking hazards ($p= 0.001$) as well as a better understanding of contents of shisha ($p= 0.021$). The association was not significant for their knowledge regarding other parameters.

DISCUSSION:

This study reflects that our family physicians have minimal awareness regarding tobacco smoking issues, hazards and the existing cessation strategies. In our set up where most of the patient's rely on their family physicians for their medical problems, updated teaching by lectures, seminars and workshops should enhance their learning and help in improving the public health with adequate tobacco control measures.

The most important causes of smoking-related mortality are atherosclerotic cardiovascular disease (CVD), lung cancer, and chronic obstructive pulmonary disease (COPD)⁹. Tobacco use also increases the risk of many other acute and chronic diseases, including cancers at many sites other than the lung⁹. Cigarette smoke contains more than 4,000 chemicals, including over 60 known carcinogens and metabolic poisons²⁰. Majority of doctors in this study were unaware of these hazards; this may be due to their lack of initiative in acquiring knowledge, or to deficiency in our teaching system in which tobacco is not given due importance.

Second hand smoke (passive smoking) is a mixture of side stream smoke given off by the smoldering cigarette and of mainstream smoke that is exhaled back into the air by active

smokers. Its recognition as a major health hazard is growing globally; it was noted that 38% of doctors could not name even one hazards associated with it.

Tobacco smoking other than cigarettes is common in our community. The health risk of smoking cigars and pipes is considered lower than that of smoking cigarettes, but higher than the health risk of a nonsmoker¹⁰. Shisha (water pipe/hookah) which is prepared with dried tobacco dipped in fruit flavors is different from cigarettes as smoke from burning tobacco is filtered through water before it is inhaled. Shisha once limited to Middle East now is a re-emerging global tobacco epidemic including Pakistan¹¹. Reports by the World Health Organization and the American Cancer Society have shown that, in a one-hour hookah/shisha session, users consume about 100 to 200 times the smoke and about 70 times the nicotine as they do in one cigarette^{12, 13}. In our cohort 46% of doctors considered it to be fruit flavored only; it's easy to judge how many of them would warn their shisha users of its hazards.

Smoking cessation is associated with substantial health benefits for male and female smokers of all ages^{14, 15}. Reasons for smoking among adolescents and patterns of smoking among adults also have been shown to differ across ethnic groups¹⁶. Such diversity in motivations and practices suggests the need for culturally competent, targeted smoking prevention and cessation materials as a means of achieving greater success in the fight against tobacco-related morbidity and mortality^{6, 17}. One tobacco control strategy that has proven effective is smoking-cessation intervention on the part of a health-care provider¹⁸. Clinician's advice to quit combined with brief counseling for three to five minutes further improves rates of quitting¹⁹.

As evident in our study, poorly aware doctors about tobacco cessation techniques would hardly be able to help their patients to quit. Although gradual reduction may be used as a prelude to cessation, cold turkey approach (stopping suddenly after at the set quit date) is a preferred strategy to quit smoking habit²⁰. This was opted by 42% of our doctors. It has been shown that effective treatment for tobacco dependence exists, that psychosocial counseling and pharmacotherapy (with nicotine replacement, bupropion, or varenicline) each has strong evidence of efficacy, and those combinations of the two methods produce the best results^{14, 20}. About two thirds of doctors in our group did not know of any drug used in tobacco cessation.

There are certain limitations that we feel are to be mentioned regarding this study. Most of the family physicians agreed for advising/counseling their patients to quit smoking but was it done precisely, for appropriate duration and whether at every visit by our respondents is questionable. Thirty six of the respondents at least knew and prescribed nicotine gums, a few bupropion and varenicline, but were these prescribed according to the guidelines is unknown. Physicians who are themselves cigarette smokers would probably not consider smoking harmful even for the patients and probably their advice will not carry the weight if their patients are aware of their smoking habit.

The study reflected that senior family physicians especially those who possessed diplomas and postgraduate degrees had a better knowledge, attitude and practices regarding tobacco related issues. It was also revealed that those family physicians working in both government and private set up possessed better understanding perhaps due to continued medical education sessions, than those working in isolated community based set ups.

RECOMMENDATIONS:

To rectify gaps of knowledge about tobacco hazards and cessation strategies among family physicians, community or hospital based CME programmes and workshops should be organized more frequently. Teaching in this regards also needs to be enhanced in our undergraduate and post graduate curriculum.

ANNEX 1

Study Performa

Status of family physicians awareness about tobacco smoking hazards and cessation- 2010

Profile

Name (optional) _____ Age _____ Gender: M _____ FM _____

Education level _____

Employment: Private/Self _____ Government set up _____

Mailing address _____

Clinic address _____

Phone No: Landline _____ Cell _____

Email address _____

Date _____

Questionnaire

1. How do you calculate smoking pack years? _____

2. What is your 'rough guess' regarding the presence of number of chemicals in a
cigarette? _____

3. Can you name any 5 hazards of tobacco smoking?

a) ___ b) ___ c) ___ d) ___ e) ___

4. How can someone kick the smoking habit away?

a) Stop at once & fight _____

b) Gradually tapering the number of cigarettes _____

5. Do you know of any medications that can help in smoking cessation? Please name them.

a) _____ b) _____ c) _____ d) _____

6. Have you ever prescribed a smoking cessation medication?

Yes _____ No _____

7. Do you counsel/advise your patients for smoking cessation?

Yes _____ No _____

8. Do you smoke cigarettes?

Yes _____ No _____

9. Name three hazards associated with passive smoking?

a) _____ b) _____ c) _____

10. The contents of Shisha (Glass pipe smoking) include (Tick one answer):

a) ___ Tobacco only

b) ___ Tobacco & Fruit flavor/essence/extract only

c) ___ Fruit essence only

Figure 1. Bar chart showing distribution of age and education status of family physicians.

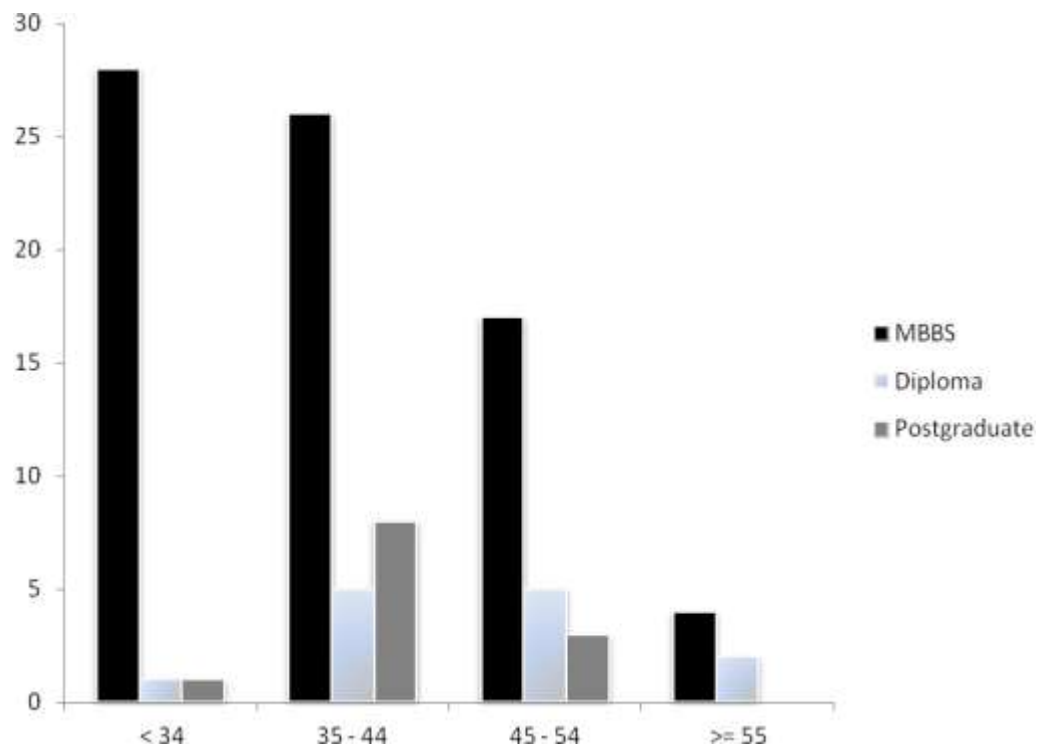


Table. 1. Association of age, education and job status with knowledge about tobacco smoking hazards and cessation.

Family physician's knowledge	Age		Education		Job status	
	χ^2	P-value	χ^2	P-value	χ^2	P-value
Pack years calculation	3.71	0.295	0.85	0.655	8.02	0.005**
Number of chemicals in a cigarette	8.84	0.183	3.54	0.472	0.19	0.909
Tobacco smoking hazards	23.41	0.076 [†]	20.85	0.016*	14.24	0.014*
Kicking smoking habit	4.98	0.173	1.13	0.568	1.81	0.298
Naming tobacco cessation medication	14.65	0.023*	2.69	0.611	3.94	0.139
Passive smoking hazards	15.65	0.075 [†]	5.70	0.450	16.49	0.001**
Prescribing anti-smoking medication	8.76	0.033*	1.16	0.561	0.05	0.819
Smoking cessation counseling	9.84	0.020*	3.48	0.157	0.29	0.593
Physician's self smoking	5.73	0.126	4.96	0.084 [†]	1.82	0.177
Contents of shisha/water pipe	7.85	0.250	2.32	0.677	7.73	0.021*

[†]Intermediate significance at 10% level of significance * Significance at 5% level of significance

** Significance at 1% level of significance

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