

Cigarette smoking and medical students at King Edward Medical University, Lahore (Pakistan)

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Abstract

Objectives: To observe the frequency of cigarette smoking in medical students of King Edward Medical University and to determine associated variables.

Method: A cross-sectional survey was conducted and data was collected through a self administered questionnaire from students at King Edward Medical University. Information about demographic characteristics, smoking status in family, number of cigarettes smoked/day, influence for starting it and use of nicotine replacement therapy was obtained. Duration of study was from April 1 to May 30, 2009.

Smoker was defined as a person who, at the time of survey smoked cigarettes either daily or occasionally.

Results: Response rate was 65.4%, of these 396 (60.55%) were male and 88(13.45%) were smokers. Smoking was more among the male students than females (p-value <0.001). The greatest percentage of smokers was in 3rd Year (n=29, 26.85%), majority were of 21-30 years age (n=59, 19.53%), started smoking between 11-20 years (n=48, 54.54%), smoked <10 cigarettes/day (n=37, 42.04%) and started smoking due to influence of friends (n=53, 60.23%). Majority (n=69, 78.4%) had no intention to quit in the next 6 months. Lack of Incentive (n=32, 36.36%) and Addiction (n=24, 27.27%) were the main reasons for not quitting.

Conclusion: Our results showed a substantial trend of cigarette smoking in medical students in Pakistan. Prevalence is more in higher classes. Majority have a smoker in their family and had started smoking under influence of peers and media. They find it relaxing and addictive, hence difficult to quit. Nicotine use was found to be uncommon.

Keywords: Cigarette smoking, Medical students, Peer pressure, Smoker in family (JPMA 61:509; 2011).

Introduction

Health Professionals are in an excellent position that allows them to have a prominent role on tobacco control.¹ They can intervene to prevent and demand reduction measures concerning tobacco dependence and cessation as

they reach a high percentage of the population¹ through education, communication, informational campaigns that raise awareness regarding effects of tobacco on health. They have the opportunity to help people change their behaviour and can give advice, guidance and answers to questions

related to the consequences of tobacco use.¹ However, marked deficits have been found in the amount and type of training medical professionals receive in smoking cessation counseling with little attention paid to determination of effective training methods.²

Various studies have been conducted all over the world to assess the prevalence of smoking among the health care providers to plan for the interventional strategies locally as well as internationally. There are an estimated 1.1 thousand million smokers worldwide, approximately one third of the global population aged 15 years and over (47% of men and 12% of women).³ Most smokers live in developing countries (800 million) and the majority are males (700 million). Although smoking rates have decreased in developed countries in past years, there has been a corresponding increase in smoking rates in developing countries.⁴

Tobacco use is very common in Pakistan and is still consumed in a variety of ways, like cigarette smoking, chewing tobacco, cigars etc. In addition to these, tobacco is smoked in unique local ways, which include "Bidi" (Tobacco rolled in dry leaves) and "Huqqa" (Hubble - Bubble),⁵ and "Sheesha" which is an upcoming trend, especially in the higher social classes.

In Pakistan during 1998, the prevalence of smoking was around 36% in males and 9% in females.⁶ There is lack of recent data. In developing countries like Pakistan with weak anti-tobacco legislation and lack of awareness among the people regarding smoking, the tobacco related diseases are also expected to show a significant increase in coming years. Tobacco use is not only capable of damaging nearly every organ of the human body but also causes at least 15 different cancers and is single-handedly responsible for 30% of all cancer related deaths.¹ The number of cases of lung cancers, chronic obstructive pulmonary disease and myocardial infarction are increasing since the sale of cigarettes is rising.⁷ Moreover, lung cancer is the leading malignancy among the Pakistani males.⁸

There is a significant trend of cigarette smoking among the medical students studying in various medical colleges of Pakistan,⁷ but the data available is not much. To devise a comprehensive plan to educate the Health Care Providers regarding the hazards of smoking and how to counsel the general public at large, we needed to find out what percentage of the medical students smoke, despite having far better knowledge of hazards of smoking than general public. In addition to this, we intended to study various variables like gender, age of starting smoking, relation of smoking status in the family, number of cigarettes smoked per day, main influence for starting smoking, reason for continuation of smoking, use and usefulness of nicotine patches among the smokers, so that factors that have lead to

persistence of this pandemic can be identified.

Subjects and Methods

The subjects recruited were medical students of King Edward Medical University, Lahore between 17-30 years of age. The sampling method used was convenience sampling. Observer bias was kept to minimum by distribution of an anonymous questionnaire to maximum number of students from all academic years of King Edward Medical University in 2009.

Smoking status was based on self reported use of cigarettes. The questionnaire consisted of 18 multiple choice questions. Information about the demographic characteristics, current academic year of study, smokers in the family, number of cigarettes smoked per day and influence for starting smoking was obtained. It was also asked whether they intended to quit smoking in the next 6 months or not and for those who had already tried quitting, questions asked were related to longest time they ever stopped smoking, use of nicotine patches and reasons for restarting. General ideas regarding what makes it difficult to quit smoking and how the government and they as future doctors can contribute towards it were also obtained. The data was put in Microsoft® access sheet and the actual figures/percentages were obtained. P-values were obtained through OpenEpi programme.

The questionnaire was designed as recommended by the guidelines of World Health Organization (WHO). According to WHO, a cigarette smoker is a person who, at the time of the survey smoked cigarettes either daily or occasionally. A daily smoker is a person, who smoked a cigarette at least once a day (except for people who smoked every day, but not on days of religious fasting were still classified as daily smokers). An occasional cigarette smoker is a person, who smoked cigarettes but not every day. A never-smoker was a person who had never smoked at all in his / her lifetime.⁷

Results

A total of 1000 students were asked to fill the self administered questionnaire and the results were analyzed for the frequency patterns. Out of the total 1000 questionnaires, 654 questionnaires were received back (65.4% response rate). Of the 654 medical students, 396 (60.55%) were male and 258 (39.45%) were female medical students.

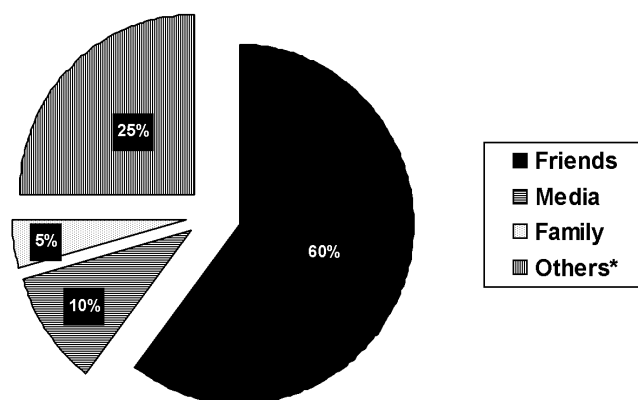
In all 88 students were found to be smokers (13.45%). Smoking rate was more among the male students than female students (p-value <0.001) (Table). More smokers were in higher age group (p-value <0.001). The greatest percentage of smokers was found in 3rd Year Students (n=29, 26.85%), however, students of other senior years also had a higher frequency of smokers (4th Year: n=24, 17.2%; and 5th Year:

Table: Relationship of Smoking Status to Gender, Age, Year of Study & Residence of Medical Students.

Variable	Smokers	Non Smokers	P-value
1. Sex Distribution			
Male	82 (16.53%)	314 (83.47%)	<0.001*
Female	6 (2.38%)	252 (97.62%)	
2. Age Distribution			
11 - 20 Years	28 (7.95%)	324 (92.04%)	<0.001*
21 - 30 Years	59 (19.53%)	243 (80.46%)	
3. Year of Study			
First Year	10 (6.8%)	137 (93.2%)	<0.001†
Second Year	5 (3.24%)	149 (96.76%)	
Third Year	29 (26.85%)	79 (73.14%)	
Fourth Year	24 (17.2%)	116 (82.85%)	
Final Year	17 (16.19%)	88 (83.81%)	
4. Residence			
Boarders	55 (14.40%)	327 (85.60%)	0.403*
Day Scholars	33 (12.13%)	239 (87.87%)	

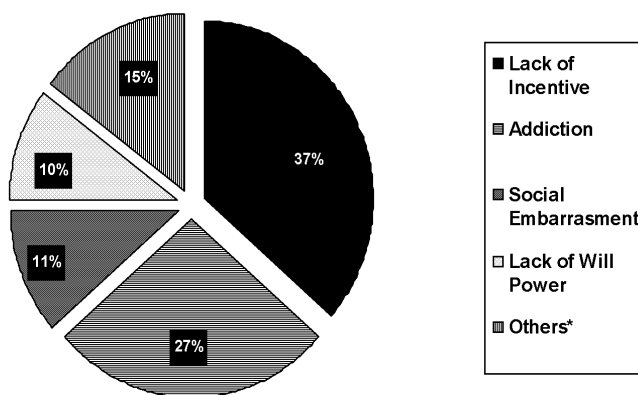
* P-value is calculated through chi square test for independence.

† P-value is calculated through chi square test for trend.



* Subjects gave their own reasons instead of picking a given choice.

Figure-1: Showing reasons for start of smoking.



* Subjects gave their own reasons instead of picking a given choice.

Figure-2: Causes of difficulty in quitting smoking among the student smokers.

n=17, 16.19%) as compared to 1st Year (n=10, 6.8%) and 2nd Year (n=5, 3.24%) students (p <0.001). It was also found that 81 (12.39%) students had a family member living with them who smoked.

Of the Students who smoked, majority started smoking between 11-20 years (n=48, 54.54%) of age and smoked less than 10 cigarettes per day (n=37, 42.04%). Majority of students (n=53, 60.23%) started smoking due to the influence of friends (Figure-1).

About one third of the student smoker's (n=29, 31.82%) gave the reason for smoking 'relaxation'. The other main reasons for continuation were consideration of cigarette smoking as "Fashionable" (n=21, 23.86%) and all addiction to it. (n=14, 15.91%).

Lack of Incentive was the main reason for difficulty in quitting cigarette smoking in student smokers (n=32, 36.36%), the other reason being addiction (n=24, 27.27%) in students who smoked Figure-2.

Of the smokers, a large majority (n=69, 78.4%) did not intend to quit smoking in the next 6 months. About three fourths (n=66, 75.0%) of student smokers had never tried to use the nicotine replacement therapy. Of those who did try it, two thirds (n=10, 11.4%) did not find it useful, while one third (n=05, 5.7%) found it some what useful.

Discussion

Health professionals can play an important role in the fight against tobacco. They can educate the population more precisely and their support, in terms of not smoking themselves can have a far reaching influence on tobacco control efforts. This study was conducted to assess the frequency of smoking in medical students of King Edward Medical University, and their attitudes towards it, so as to highlight the importance of their future designation as being the health care providers and role models of society.

A Study¹⁰ was conducted in 2005 on medical students of Agha Khan University, Karachi where it was found that out of 271 respondents, 14.4% were current smokers (22.0% male and 3.8% females) and 3.3% were ex-smokers as compared to a current study where smoking rate was 13.45% in total. A majority of students recognized the dangers associated with active as well as passive smoking although only 55% of current smokers planned to quit in the near future [in contrast to current survey that has revealed a big majority (n=69, 78.4%) who did not intend to quit smoking in next 6 months]. Most smokers (96%) believed that they as well as other health professionals needed training on smoking cessation and 95% of all students believed that doctors should play a role model in smoking cessation by not smoking themselves.

Another survey¹¹ conducted to find the frequency of smoking and awareness of tobacco related diseases among

medical students of Ziauddin Medical University in 2000 showed that smoking was more prevalent among males (26%) as compared to female students (1.7%) [The present study also shows the similar trend with more male smokers (n=82, 20.71%) and less female smokers (n=6, 2.33%)].

A study¹² conducted in 15 medical schools from nine Asian countries in 1992 reported that the prevalence of daily smoking in males was 4% in the First year and 11% in the Final year; of occasional smoking 18% and 24% respectively, both with considerable variations between countries. The rates were very low amongst women. [Current study also shows greater smoking rates in senior study years (5th Year: n=17, 16.19%) as compared to junior study years 1st Year (n=10, 6.8%) probably because of the more quantum of stress experienced by senior medical students].

Conclusion

Smoking remains fairly common in medical students and a superior knowledge of smoking related risks does not always correlate with a lower rate of smoking among medical students. The overall smoking frequency of 13.45% found in this study indicates this fact. Peer pressure remains the main factor in pushing young into this menace. Moreover, many smokers were found with no intention to quit in near future. Use of nicotine substances to help quit smoking was also not found to be popular among smokers. Thus, we need to create more awareness regarding hazards of smoking in general population especially in medical students, and afterwards

provide psychological and pharmacological support for those who intend to quit, as medical students can themselves become a tool to fight this hazard at all levels.

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