ORIGINAL RESEARCH ARTICLE

Tanaffos (2005) 4(16), 63-67

Smoking in Iranian Physicians: Preliminary Report

Gholam Reza Heydari [1], Sanaz Amini [1], Mostafa Hosseini [2], Mohammad Reza Masjedi [3]

[1] Smoking Cessation Unit, NRITLD, Shaheed Beheshti University of Medical Sciences and Health Services, [2] Department of Epidemiology and Biostatistic, Institute of Public Health, Tehran University of Medical Sciences and Health Services, [3] Department of Pulmonary Medicine, Shaheed Beheshti University of Medical Sciences and Health Services, TEHRAN-IRAN.

ABSTRACT

***Background**: The medical community has a special role both in preventing and controlling smoking. According to research studies conducted in many countries, many medical staff members are smoker themselves and there is a significant correlation between the rate of smoking in physicians and smoking in the society.*

Considering the fact that we did not have such information in regard in our society, this study was conducted nationwide to evaluate smoking and its related diseases among members of the Iranian Medical Council. A cross sectional, descriptive study was done by sending questionnaires in accordance with standard criteria from World Health Organization (WHO) and International Union Against Tuberculosis and Lung Disease (IUATLD).

The population under study were all Medical Council members, 80000 people in number.

***Materials and Methods**: This study was conducted in 2003 by sending the questionnaires via the Journal of the Iranian Medical Council to all members. The answers were sent back by prepaid envelopes via express mail.*

***Results:** Data obtained from 3270 returned questionnaires indicated that 13.1% of the population under study were smokers. This number did not show any significant difference compared to the rate of smoking in the society (12.5% in the year 2000). However, smoking in 19.6% of the male physicians and 5.5% of female physicians showed a significant difference as compared with the rate of smoking in males and females in the society (25.2% in males and 2.5% in females in the year 2000).Also, 16.6% of general physicians, 12.5% of pharmacists, 12.5% of dentists, 10.6% of specialists, 18.2% of nurses, 1.4% of midwives, and 4.7% of other medical personnel were smokers.*

The most common age at which smoking was started was 18 yrs in 31%. It must be mentioned that 10.5%of people had started smoking before the age of 15.

In 39.6%, they were suffering from various related diseases. This rate was 37.2%, 46.4% and 45% in non-smokers, ex-smokers and smokers respectively (p=0.00).

***Conclusion**: In smokers, the rate of smoking-related diseases increases with an increase in the number of cigarettes smoked daily; as 28.2% of the people who smoke less than 10 cigarettes per day are sick. This rate is 44.6% in persons who smoke more than 20 cigarettes a day (p=0.00).*

*The obtained results are useful in smoking control training programs for the medical community and health priorities nationwide. **(Tanaffos 2005; 4(16): 63-67)***

***Key words:** Smoking, Members of the Medical Council, Disease*

Correspondence to: Heydari Gh

Address: NRITLD, Shaheed Bahonar Ave, Darabad, TEHRAN 19569, P.O:19575/154, IRAN

Email address: ghheydari@nritld.ac.ir

INTRODUCTION

Five million people die every year in the world as a result of smoking. This rate seems to be going higher.

In most countries, young adult smokers are the future elderly smokers. Among them, 10 million will die every year as the result of smoking. Almost 500 million people who are alive now, are waiting for the smoking-related deaths. Two hundred and fifty million deaths will occur in middle-aged people (1).

Smoking is the major cause of death in adults in developed countries, and the cause of one-third of deaths in middle-aged men and one-fifth of deaths in the elderly. The mean rate of decreased life expectancy in smokers is 8 years. Although this rate is 22 years in those who die in middle ages (35-69 yrs.) (2).

In a study performed on English physicians for 40 years the rate of death in middle-aged smokers was 3 times greater than those who had never smoked regularly (3). Half of regular smokers will eventually die as the result of this habit. Among these physicians, life expectancy increased even in those who quit smoking (even in middle-ages) (4).

The medical community has a major role in controlling smoking because of its profession. Studies have shown that there is a direct correlation between the rate of smoking in physicians and the rate of smoking among the normal population. In countries in which smoking is higher in physicians, this rate is higher in the remaining population as well.

For example, in Bosnia 55% of male physicians and 50% of female physicians smoke; therefore, 48% of the remaining community smoke as well. Whereas in India, 3% of male physicians smoke, the rate of smoking in the community is 16% (5). These rates show the value and role of physicians in controlling smoking in the community. The manner and behaviour of physicians regarding smoking create a pattern for their patients to follow. On the other hand, physicians have unique opportunities to advise their patients not to smoke at a time when patients are more likely to obey than any other time.

Physicians can play a key role in social health because they hold a position of trust. Many countries have conducted researches regarding the rate of smoking in physicians and their knowledge of smoking but such studies have not been performed in Iran.

MATERIALS AND METHODS

A descriptive cross-sectional study which shall be repeated every 5 years, and is based on questioning all members of the Iranian Medical Council was done.

Therefore, questionnaires were designed according to WHO questionnaires which also matched questionnaires of IUATLD. Considering the results of a pilot study which had 1.5% respondent, some changes were made in the questionnaire to remove the name and addresses from the questionnaire to make it more acceptable for the under study group.

Using the Journal of the Iranian Medical Council to reach study group it was sent every 2 months to all members.

All Medical Council members who had become a member of this organization up to December 2003 were enrolled in the study. These members were physicians, dentists, pharmacists, midwives, nurses and other paramedical personnel.

Prepaid envelopes were designed for this purpose and sent along with the questionnaires, making it easy for the people to respond. The questionnaires were collected from the post office every few weeks.

After coordinating with the president of Medical Council and the chairman and editor in chief of the Medical Council Journal, 80000 questionnaires with

the prepaid envelopes along with a paper in which the type of study and its objectives were explained were placed in the journal and sent to the members. The questionnaires were coded according to the related province.

After organizing the questionnaires, data including general information of the person, habit of smoking and presence of probable disease were entered in the computer. Data obtained by relative frequency, chi-square test ($p<0.05$) and t-test were analyzed using SPSS software.

RESULTS

Among the sent questionnaires, 3270 members responded, which showed that 4.6% responded to the study which was a three-fold increase compared with the pilot study.

Out of 3270 respondents, the highest rate belonged to the province of Tehran with 60.9%, Kerman with 9.1%, Hamedan with 5.1%, Isfahan with 4.7% and the remaining to other provinces.

Minimum age of respondents was 21 yrs. and maximum was 87 yrs. and the highest age was between 31 and 40 yrs. (43.5%) and most at the age of 36 yrs (5.4%). The mean age of members was 39.9(±12.45SD) yrs. Among the respondents, 53.9% were general physicians, 9.2% were pharmacists, 7.9% were dentists, 16.9% were specialists, 0.3% were nurses, 9.1% were midwives, and 2.7% were paramedical personnel.

Among the population under study 51.1% of the study members were male and 48.9% were female and 871 persons (27.1%) were single and the remaining were married. Of Medical Council members 39.6% had at least one type of cardiovascular, respiratory, gastrointestinal, nervous system diseases, cancer, etc.

Among all respondents 72.5% were nonsmoker, 13.1% were smokers and 14.4% had quit smoking.

Data obtained regarding the smoking habits among smokers of the Medical Council were as follows:

Among smokers and ex-smokers the minimum age of starting smoking was 10 yrs, maximum was 60 yrs. The mean age of starting smoking was 19.9(±5.4 SD) yrs and the most common age of starting was at the age of 18 (31%). Only 10.5% of smokers had started smoking before the age of 15.

In ex-smokers the most common age at which they had quit smoking was 36 yrs (22.6%), the minimum was 31 yrs and the maximum age was 58 years.

The highest rate of cigarettes smoked per day by the smokers was 10 cigarettes a day (21%).

Nicotine dependence rate which was calculated by Fagerstroms' test (a questionnaire containing 6 questions with the maximum score of 10) showed that 189 persons (45%) were highly addicted to smoking and smoked their first cigarette right after waking up in the morning.

Evaluating the time of smoking in smokers showed that afternoon was the most common time of smoking (48%). Among smokers, 178 persons (42.2%) were interested in quitting, 44 persons (10.5%) did not want to quit and the remaining (47.3%) were not sure about quitting smoking.

Also, 177 persons (41.9%) have not quitted till now and others had at least one experience of quitting in the past. Among smokers, the father was smoker in 30% of the cases, the mother in 5.5%, both parents in 4.3% and neither in 60.2% of the cases.

Analytical results:

Two hundred ninety five (19.6%) men and 80(5.5%) women were smoker. Number of ex-smokers was 345(22.9%) men and 80(5.5%) women (table 1).

6.1% of singles and 15.9% of married individuals were smokers (table 2). Frequency distribution of smoking among members of the Iranian Medical Council in regard to different types of jobs was as

follows:

16.6% of general physicians, 12.5% of pharmacists, 12.5% of dentists, 10.6% of specialists, 18.2% of nurses, 1.4% of midwives, and 4.7% of other medical personnel were smokers.

Table 1. Relative frequency distribution of smoking pattern in Iranian physicians in 2003.

	Pattern of smoking			Total
	Smoker	Ex.smoker	Non-smoker	
Male	295(19.65%)	345 (22.9%)	866 (57.5%)	1506 (100%)
Female	80 (5.5%)	80 (5.5%)	1289 (89.0%)	1449 (100%)
Total	375 (12.7%)	425 (14.4%)	2155 (72.9%)	2955 (100%)

P=0.00

Table 2. Relative frequency distribution of smoking in Iranian physicians according to marital status in 2003.

	Pattern of smoking			Total
	Smoker	Ex.smoker	Non- Smoker	
Single	53(6.1%)	249(28.7%)	567 (65.2%)	869 (100%)
Married	370 (15.9%)	205 (8.8%)	1746 (75.2%)	2321 (100%)
Total	423 (13.3)	454 (14.2%)	2313 (72.5%)	3190(100%)

P=0.00

Regarding the prevalence of smoking in different provinces, 29.6% of respondents in Isfahan province, 20% in Ahvaz and 12% in Tehran were smokers.

The prevalence rate of various diseases was 45% in smokers, 46.4% in ex-smokers and 37.2% in nonsmokers (table 3); and 44.6% (75 persons) of smokers and ex-smokers who had been smoking more than a box per day had one of the diseases previously mentioned while this rate was 28.2% (187 persons) in persons who smoked less than 10 cigarettes a day.

Table 3. Relative frequency distribution of presence of any sickness in Iranian physicians according to their pattern of smoking

	Sick	Healthy	Total
Non-smoker	872(37.2%)	1473 (62.8%)	2346 (100%)
Ex-smoker	216(46.4%)	250 (53.6%)	466 (100%)
Smoker	191 (45.0%)	233 (55.0%)	424 (100%)
Total	1280 (39.6%)	1956 (60.4%)	3236 (100%)

P=0.00

DISCUSSION

Evaluation of the rate of smoking among medical personnel was conducted to evaluate the prevalence of smoking and smoking habits among physicians and medical personnel and rate of diseases in different groups in regard to the pattern of smoking. Results obtained by this study can be evaluated and discussed in different aspects.

Cooperation of most physicians in the province of Tehran in this study might be due to the anti-smoking advertisements conducted in Tehran and/ or their greater motivation in this regard.

In general, most of the respondents were physicians and specialists. This might be due to their increased knowledge about smoking hazards and their important role as a counsellor in critical position and their higher training and educational years in regard to smoking hazards.

Participation of midwives in this research was interesting as well. Nurses had less participation comparing with others and 51.1% of the participants were male and 48.9% were female, which indicates almost equal participation of men and women in this study.

Our study showed 19.6% of men and 5.5% of women smoked, while in the normal population 25.2% of men and 2.5% of women were smokers (6). This rate shows the higher rate of smoking among females in the medical community. This might be due to advertisements of the tobacco industries that show smoking as a sign of higher education and level of thinking.

Regarding marital status, 75.5% of those married and 65.2% of single did not smoke. This fact shows the protecting role of the family in preventing smoking. However, in our study group (Table 2) daily smoking is higher in people in the married group (15.9% versus 6.1% in single group).

In explaining this fact it must be mentioned that the mean age in single group and married group is 33.7±7.8 yrs and 42±12.9 yrs, respectively.

Therefore, it is understandable that the pattern of smoking in singles is mostly experimental and occasional (28.7% versus 8.8% in married group). In spite of the above mentioned fact, it is noteworthy that high dependency to nicotine was higher in married individuals (30.8% versus 19.6% in singles). Therefore, higher rates of daily cigarette smoking in the married group can be explained. Among all respondents 72.5% were non-smokers, 13.1% were smokers and 14.4% were ex-smokers. These figures are in accordance with the international rates (7). The smoking rate in the society is 12.5% (8), and this rate in physicians is close to each other. This fact indicates a link between the medical community and trend of smoking in the country and affecting the physicians.

RECOMMENDATIONS

According to the values obtained in this study and similarity of smoking rates in the society and medical community, it is necessary to establish training courses to inform the medical community about smoking hazards and to motivate them to quit. Public awareness through the medical community is also essential. These programs should be priorities in universities.

Because the response rate of the experimental group in this study is not high, more attention must be paid in similar studies to the type of questioning. Furthermore, the correlation between smoking and its role in causing diseases needs more evaluation.

Acknowledgement

We would like to thank the president of the Medical Council of Iran, chairman of the Iranian Journal of Medical Council and his colleagues, manager of the post office of in 19th district, and all colleagues in "National Research Institute of Tuberculosis and Lung Diseases" who cooperated in this study.

REFERENCES

1. Curbing the epidemic: governments and the economics of tobacco control. The World Bank. ***Tobacco Control*** 1999; 8 (2): 196- 201.
2. World health organization. Tobacco or health. A global report. Geneva 1997: WHO. ISBN 92-4-156184-X.
3. Doll R, Crofton J (eds). Tobacco and health. ***Br Med Bull*** 1996; 52 (1): 1-227.
4. Peto R, Lopez AD. Future worldwide health effects of current smoking. In Koop CE, Pearson CE, Schwartz MR. Critical issues in. global health. Sanfrancisco: Jossey-Bass. 2001; ISBN 0- 7879- 4824-1.
5. Simpson D. Doctors and tobacco. London: Tobacco Resource. Centre at British Medical Association. 2000; ISBN 0-7279-1491-X
6. Mohammad K, Nourbala AA, Majdzadeh SR, Karimloo M. Trend of changes in prevalence of tobacco use in Iran. (1991-1999) according to two national surveys of health and disease. ***Hakim Journal*** 2000; 197: 290-4
7. Amos A. Women and smoking. ***Br Med Bull*** 1996; 52 (1): 74- 89.
8. Ziaei P, Hatamizadeh N, Vameghi Doulat Abadi Sh. The rate of smoking and age of starting smoking in high school students of Tehran in 1998-1999. ***Hakim Journal*** 2001; 2: 78-84.