

PASSIVE SMOKING STATUS OF STUDENTS AND EMPLOYEES OF A PRIVATE MEDICAL UNIVERSITY

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ABSTRACT

Objective: To study the passive exposure by cigarette smoke among students and employees of Ziauddin Medical University.

Method: The data of passive smoking status was collected by a self administrated questionnaire which was prepared as per WHO guidelines.

Results: The eighteen staff members were smokers whose number was significantly higher (P value-0.04) when compared with students and faculty members. The thirteen of faculty members were among the never smoker category and their number was significantly higher (P value-0.004) compared to students and staff members while more students were passive smokers (36) as compared to staff and faculty members.

Conclusion: Passive exposure to cigarette smoke is seen more in students as compared to faculty and staff so it is essential to create awareness both in health professionals and common people to prevent them from hazards of passive smoking.

KEY WORDS: Passive smoking, Ziauddin Medical University.

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INTRODUCTION

Tobacco use is very common in Pakistan and is still widely 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).¹

In Pakistan, 76% people smoke cigarettes / bidi in urban areas and 53% in rural areas among males and 34% in urban and 27% in rural areas among females² developing countries including Pakistan with weak anti-tobacco legislation, the quantum of tobacco related diseases will increase over the next decade or two. The number of cases of lung cancer, chronic obstructive lung disorders and myocardial infarction all are increasing since the sale of cigarettes is increasing. Moreover lung cancer is the leading malignancy among Pakistani males.³

Involuntary smoking occurs when non-smokers are exposed to tobacco smoke of smokers in a closed environment.⁴ The harmful effects of tobacco on human health are well established for those who live or work with smokers.⁵

Passive smoking implicates 20-80% of the whole population in USA and is nearly as harmful as active smoking depending upon risk factors. It can lead to short as well as to long-term effects. Children are the most

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vulnerable population particularly during the first years of life and especially in home. Passive smoking increases risks for higher and lower respiratory tract illness but a smoke free environment improves all these disorders. Ischemic heart diseases and lung cancer are the main risks for non smoking adults exposed to cigarette smoke. Tobacco use and exposure is the single most important source of preventable morbidity, disability and premature mortality.⁶ The harmful effects of tobacco on human health are well established, both for those who use it and for those who live or work with smokers.

Keeping in mind the hazards of passive smoking, we studied the prevalence of passive smoking in students and employees of Ziauddin Medical University, Karachi.

SUBJECTS AND METHODS

The study included 135 subjects between 18 to 45 years of age. The subjects recruited were medical students and employees of Ziauddin Medical University, Karachi. A questionnaire was administered regarding environmental and health history, smoking status and passive exposure of the participants to smoking in home, workplace and transport (Public and Private). The questionnaire was made according to the guidelines of World Health Organization (WHO). According to WHO, a smoker was a person who, at the time of the survey, smoked any tobacco product either daily or occasionally. Smokers could be either daily or occasional smokers. A daily smoker was a person, who smoked any tobacco product at least once a day (except that people who smoked every day, but not on days of religious fasting, were still classified as daily smokers). An occasional smoker was a person, who smoked but not every day.) A never-smoker was a person who either had never smoked at all or had never been a daily smoker and had smoked less than 100 cigarettes (or the equivalent amount of tobacco) in his/her lifetime) and passive smokers, who were never-smokers but exposed to cigarette smoke. The exposure to tobacco smoke was determined in persons who were

exposed either in home/workplace or both keeping in mind the fact that the ubiquitousness of tobacco smoke in homes, workplaces, public areas and private establishments makes exposure to environmental tobacco smoke unavoidable.

RESULTS

The study included 135 subjects. It comprised of 28 faculty members, 39 staff members and 68 students of Ziauddin Medical University, Clifton Campus. They were asked to fill in questionnaire and were divided into three groups according to their self reported smoking status. Group one comprised of 43 smokers. Group two included 31 never smokers and group three included 61 passive smokers who were never-smokers but were exposed to cigarette smoke at home/workplace.

The smoking status of students, faculty members and staff members of Ziauddin Medical University, Clifton Campus is given in Table-I. The eighteen staff members were smokers whose number was significantly higher (P value-0.04) when compared with students and faculty members. The thirteen of faculty members were among the never smoker category and their number was significantly higher (P value-0.004) compared to students and staff members while more students were passive smokers (36) as compared to staff and faculty members. Among 68 students, 27 were males and 41 were females. 12 males and 16 females were faculty members while 33 males and 6 females were among the staff members.

Table-I: Smoking status of Study Subjects
(The subjects are expressed in numbers and percentages given in parenthesis)

<i>Smoking Status</i>	<i>Students n (%)</i>	<i>Faculty n (%)</i>	<i>Staff n (%)</i>
Smoker	20 (29.4)	5 (17.9)	18 (46.2)*
Never Smokers	12 (17.6)	13 (46.4)**	6 (15.4)
Passive Smokers	36 (52.9)	10 (35.7)	15 (38.5)
Total	68 (100)	28 (100)	39 (100)

* P value 0.041 Significant compared with student and faculty

** P value 0.004 Significant compared with students and staff

Note: P value calculated by test of proportion

The mean age, body mass index, weight and height of the three groups is shown in Table-II. The mean weight of never smokers was significantly less (P value- 0.03) when compared with the mean weight of smokers and passive smokers. Similarly the mean height of never smokers was significantly less (P value-0.01) as compared with smokers and passive smokers.

DISCUSSION

The emphasis in the study was to know the passive smoking status of students and employees of Ziauddin Medical University. The studies are lacking in our country to know the quantum of exposure to tobacco smoke. In this study it was determined in persons who were exposed either in home/workplace or both keeping in mind the fact that the ubiquitousness of tobacco smoke in homes, workplaces, public areas and private establishments makes exposure to environmental tobacco smoke unavoidable. The health effects of environmental tobacco smoke published in 1991 in WHO Report, concluded that the relative increase in risk for lung cancer in non- smokers married to a smoker was between 20 and 50% and the environmental tobacco smoke in the workplace was the next most important source of exposure after that of wife or husband.⁷

Years ago, smoking used to be a more clearly defined habit. People were either smokers or non -smokers but now it seems to be chang-

ing. Now WHO has published guidelines for measurement of smoking. Our main concern in the validity of self reported smoking had been the misclassification due to possible under reporting of smoking status. This had been of particular concern in our setup where there is a social pressure against smoking.

Staff members (Office staff/Paramedics) were more self reported smokers as compared to medical students and faculty members (P value 0.04, Table-I). This finding is consistent with another study⁸ in which prevalence of smoking in Jinnah Postgraduate Medical Centre was highest as compared to other regions of Karachi and it was higher in staff members. This is possibly due to their stressful job and less knowledge about health as compared to medical students and faculty members. Moreover, staff members were more males (33 out of 39) and prevalence of smoking is 36% in males and 9% in females.² In the same way, faculty members were more self reported never smokers as compared with students and staff (P value 0.004, Table-I) due to their better knowledge towards health. Moreover, among 28 faculty members, 16 were females and prevalence of smoking in females is 9% in Pakistan as reported in 1998 and no current data is available up till now.⁵

The height and weight of smokers and passive smokers were high as compared with never smokers (Table-II). Although these values were statistically significant but body mass index showed no significant change as such. Hence, cigarette smoking is not associated with any change in height and weight. This finding is consistent with another study⁹ which reported no significant change in height and weight of smokers and non-smoke.

CONCLUSION

Passive exposure to cigarette smoke is seen more in students as compared to faculty and staff so it is essential to create awareness both in health professionals and common people to prevent them from hazards of passive smoking.

Table-II: Age, BMI, Height and Weight of Study Subjects
(The values are expressed as Mean and SEM)

	<i>Never Smokers</i>	<i>Passive Smokers</i>	<i>Smokers</i>
Age (years)	26±1.3	25±0.8	24±0.8
BMI (Kg/m ²)	22± 0.8	23±0.5	22±0.6
Wt (Kg)	58.1±2.0	64.8±1.5*	64.9±2*
Ht (m)	1.63±0.02	1.67±0.01**	1.69±0.01**

* P value 0.03- Significant when compared with never smokers

** P value 0.01- Significant when compared with never smokers

Note: P-value calculated by ANOVA

RECOMMENDATIONS

1. A high priority for future studies is to measure environmental tobacco smoke exposure in multiple settings including household exposure, industries, restaurants, school children etc.
2. There should be measurement of environmental tobacco smoke exposure in bidi and huqqa smokers as a next prospect as these are fairly common in our country.
3. Government should impose high duty and sales tax on cigarettes to discourage smoking which will also reduce passive smoking.
4. Smoking should be strictly banned on public places and people who breach the law should be penalized.
5. Hazards of passive smoking should be highlighted through the media.

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