

Prevalence of Smoking among Karachi Population

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Abstract

Aims: To determine the prevalence of smoking in Karachi population and compare it with previous studies to see if any change has occurred in this addiction.

Setting: Cross sectional survey in 5 districts of Karachi, using a questionnaire.

Subjects and Methods: Apparently healthy subjects from 25 areas covering 5 districts of Karachi were interviewed regarding their smoking habits, ethnic origin, socioeconomic strata and the education level. Two modes of interview were adopted, one was a house to house and the other was interview at public places.

Results: Previous studies showed a 21-32.3% prevalence of smoking which is almost similar to 32.7% seen in this study. In the present study highest frequency of smoking was seen in college going male students belonging to 21-25 years while in females majority were graduates belonging to 26-30 years age group. The age at which most cases acquired this habit was between 15-25 years and in majority it was introduced by friends. Although most knew that smoking was hazardous for health and many cases did make an attempt to quit but very few were able to get rid of this addiction.

Conclusion: Over the past few decades not much change has been seen in the frequency of smoking in our press and other media are required to improve public population. Stronger anti smoking campaigns using awareness (JPMA 52: 250; 2002).

Introduction

Smoking causes damage to the lungs and cardiovascular system leading to serious diseases like cancer and heart disease resulting ultimately in high morbidity and mortality. Worldwide about 4 million people die of smoking every year and this figure is likely to rise by the year 2020 when tobacco related disease mortality shall be 8.4 million¹.

In Pakistan, the prevalence of smoking in population-based survey varies from 21% to 30.3%²⁻⁶. We did a larger population based study in an attempt to obtain data on smoking habits amongst Karachi population.

Subjects and Methods

Karachi is divided into 5 districts therefore to get a statistical sample data was collected from 25 areas covering all five districts of Karachi including both men and women. Data was collected from these 25 sites at random on the smoking habits in various ethnic groups, socioeconomic strata and the education level of the population studied.

Two modes of survey were adopted; one was house-to-house survey of 460 individuals, second was interview at public places in 1071 subjects. A proforma was designed for the survey which included both closed as well as open-ended questions. Training of the team was done followed by running of a pilot study before the survey was launched. The areas where survey was conducted included following sites.

House to house sites

District Central: Federal B Area, North Karachi, Nazimabad.

District South: Defence, Clifton and Saddar.

District East: Bahadurabad, Korangi, Landhi, P.E.C.H.S., K.M.C.H.S. and Gulshan-e-Iqbal.

District Malir: Gulistan-e-Jauhar, Malir Cantt, Malir City and Model Colony.

Public places:

District Central: Federal B Area, Nazimabad and North Karachi.

District South: Lines Area, Manzoor Colony, Jinnah Hospital, Defence Housing Authority, Clifton, Saddar.

District East:

P.E.C.H.S., S.M.C.H.S., K.M.C.H.S., Guishan, Tariq

Road, Bahadurabad, Mehmoodabad, Korangi and Landhi.

District Malir: Gulistan-e-Jauhar, Malir Cantt, Malir City and Model Colony.

W.H.O.⁷ criteria for smokers and non-smokers was used and data analyzed using chi square.

Results

Of the total 1625 cases approached for the interview, 91 refused to participate in the study leaving 1531 cases (1061 males, 470 females). Refusal for interview was predominantly seen in the public places where fear of losing the public transport was the main reason. Female investigator experienced more refusal than male investigator. Of 1061 males 586 were non-smokers, 441 smokers and 34 ex-smokers. In females 379 were nonsmokers, 90 smokers and 1 ex-smoker.

Table 1. Age Vs gender Vs Smokers.

Age in years	Male			Female			Total
	Non-Smoker	Smoker	Ex-Smoker	Non-Smoker	Smoker	Ex-Smoker	
15 - 20	48	60	None	30	14	0	152
21 - 25	101	154	5	103	14	1	378
26 - 30	127	73	8	82	22	0	312
31 - 35	105	45	3	41	14	0	208
36 - 40	58	27	1	39	8	0	133
41 - 45	40	27	4	16	12	0	99
46 - 50	51	23	2	35	2	0	113
51 - 55	33	17	2	15	2	0	69
56 - 60	5	7	2	9	0	0	23
61 - 65	12	4	3	3	0	0	22
66 - 70	3	2	2	2	2	0	11
71 - 75	3	1	2	0	0	0	6
75 - 80	0	1	0	4	0	0	5
Total	586	441	34	379	90	1	1531

Table 1 shows the age, gender and smoking habits of the population studied. Highest frequency of

smoking in males was seen between 21-25 years (154 cases) and in females between 26-30 years (22 cases).

Area wise prevalence of smoking was maximum (17.8%) at Jinnah Postgraduate medical centre followed by 14.6% in Defence Housing Authority, 12.5% in P.B.C.H.S. 10.9% in Nazirnabad 9.7% in Gulshan, 8% in Clifton and 7.3% in Korangi. Among these areas Defence and Clifton area belong to upper socioeconomic and higher education groups. At Jinnah Hospital there is a mixed population of highly educated and high socioeconomic group and lower to middle socioeconomic group having primary or secondary education.

The correlation of level of education with smoking is shown in table 2.

Table 2. Education with gender-wise Smoking Prevalence .

Sex	Smoker	Un-Educated No.	Primary No.	Matric No.	College No.	Graduate No.	Professional No.	Others No.	Total No.
Male	Non smoker	61	51	115	185	124	50	-	588
	Smoker	71	37	48	141	99	43	2	441
	Ex-smoker	1	-	2	19	10	2	-	34
Female	Non smoker	31	27	48	141	96	36	-	379
	Smoker	18	2	4	19	43	4	-	90
	Ex-smoker	-	-	-	1	-	-	-	1
Total		182	117	217	506	372	135	2	1531

Highest number of male smokers (141) had a college level education while in females it was graduate level education (43).

Table 3. Prevalence of Smoking in various Ethnic groups.

Sex	Smoker	Sindhi No.	Mohajir No.	Pathan No.	Balochi No.	Punjabi No.	Others No.	Total No.
Male	Non-smoker	37	343	78	3	124	1	586
	Smoker	23	293	37	1	79	8	441
	Ex-smoker	2	23	3	-	5	1	34
Female	Non-smoker	13	244	23	4	87	8	379
	Smoker	12	50	10	4	14	-	90
	Ex-smoker	-	1	-	-	-	-	1
Total		87	954	151	12	309	18	1531

Table 3 shows the trend of smoking in various ethnic groups. Highest number of smokers (343) were found amongst migrants from India (mohajirs) in both sexes. Consumption of cigarettes ranged from 1 - 50 per day. Majority (77.8%) smoked upto 10 cigarettes a day, 16.8% smoked 11-15 cigarettes per day (Table 4).

Table 4. Cigarette Consumption.

No. of cigarettes smoked	Male		Female		Total
	Smoker	Ex-smoker	Smoker	Ex-smoker	
1 - 5	76	7	28	0	111
6 - 10	114	6	12	0	132
11 - 15	41	2	8	0	51
16 - 20	9	1	0	0	10
> 20	4	0	0	0	4
Total	244	16	48	0	308

Majority of the cases smoked during the working hours and in public places.

Gold leaf brand of cigarette was consumed by most of the smokers (25%), followed by Marlboro in 17 %; other brands were used in smaller number of cases. Thirty percent cases kept on changing their brand of cigarette.

The daily expenses on cigarettes ranged from Rs 5 -4000 per day with majority (39%) spending about 100-400 rupees per day, 24% spent about 500-800 rupees per day and 10% spent 1700-4000 per day.

The age at starting the habit ranged from 12-45 years. Majority (84%) started to smoke between 15-25 years of age. The duration of smoking ranged from 1- 50 years with 55% smoking since 1 - 10 years. The urge of smoking in the morning (within first 20 minutes of waking) was present in 37.3% indicating that the addiction was well established. Under stress smoking was present in 46.8% and after meals cigarette was used by 80.7%. The habit of smoking was introduced by friends in 55% while 40% were self-starters. In 43% of the cases their either parent was a smoker while in 25.3% a sibling was a smoker. Of 531 smokers, 280 made an attempt to quit smoking. Attempts to quit smoking varied from 1 to multiple attempts. The most common method of quitting was thought to switch on low tar cigarettes (which on the contrary has more addiction and is cheaper).

The knowledge about smoking being an addiction was present in 49.8%, about producing cancer in 75.6 %, a cause of heart disease and arteriosclerosis in 71% cases and a leading cause of death in 46%. Similarly a large number (84.5%) knew that cigarette smoking affected lungs, 44% had the knowledge about smoking affecting the foetus during pregnancy and 65.6% said that many other diseases were caused by smoking.

Discussion

Epidemiological studies about usage of tobacco chewing and smoking in Pakistan have been lacking. Previous reports from Pakistan on various addictions in oral lesions show that the prevalence of smoking ranged from 25-30% with 21% seen in medical students¹⁻⁶. In the present study 27.2% males and 5.5% females were smokers with an overall prevalence of 32.7% indicating that not much change has occurred in this habit over the last few decades.

The figure of 5.5% female smokers in the present study apparently looks low but it includes mostly affluent upper socioeconomic class, where females enjoy financial and cultural independence. If this group is separated from the rest of the females then the prevalence of smoking in the middle to lower socioeconomic group would become very low; because culturally smoking is a taboo among women. Their habit of starting or continuing of smoking is rare, in fact, they have a very strong anti-smoking attitude. The prevalence of smoking in upper class women is rising because it is taken as a gesture of liberalism.

It was surprising that prevalence of smoking in Jinnah Postgraduate Medical Center was highest (17.8%) despite the fact that this group had more health knowledge and were treating patients suffering from one or the other disease related to smoking. The prevalence of smoking was higher in the surgical staff than the medical staff with stress being identified as the only reason for their higher smoking.

Largest number of smokers were found between 20-30 years age group with majority being college or post college students. This age is recognized to be the most vulnerable, for indulgence into various addictions and the same was reported in an earlier study where 21% medical students were found to be smokers³. Foreign brands of cigarettes were preferred by 39% of smokers and the rest consumed local brand with majority spending a sizable amount of their salary in this addiction. Although majority of those interviewed did have the knowledge that cigarette smoking was hazardous for health but very few were able to quit this addiction, The present study is contradictory to the reports from developed and some developing countries where a drop in tobacco smoking has been observed over the last few years. A stronger anti smoking campaign and better health awareness programs plus higher motivation is required to achieve the desired results.

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