

Patterns of Tobacco Use Amongst Engineering College Students in Ahmedabad District



Medical Science

KEYWORDS : Smoking, Peer pressure, Parental history

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ABSTRACT

Purpose: Smoking is currently the single leading preventable cause of death. Anyone with a smoking habit has an increased chance of lung, cervical, and other types of cancer; respiratory diseases such as emphysema, asthma, and chronic bronchitis; and cardiovascular disease, such as high blood pressure, stroke, and atherosclerosis. Though some people believe some brand of cigarette are safer, it also carries health risks.

Methodology: A cross-sectional study was carried out among 250 engineering students of three engineering colleges of Ahmadabad with pre designed questionnaire which included Current smoking status, starting age, and average consumptions per day were obtained. Data was collected after explaining the purpose of the study and verbal consent was obtained from each patient.

Results:

Mean age of students was 19.4 year with 1.9 SD. Out of total 250 students , 47 (18.8%) were found to be current smokers. The prevalence of current smoking among 22-23 years age group was 40% followed by 20-21 years (24.1). Proportion of current smoker among students with parental history was 40.1%. Majority of students (87.5%) were smoking less than 5 cigarette per day and 5% of students were smoking more than 10 cigarette per day. More than 2/3rd (80%) of students were spending up to 200 rupees per week. Around 40% of students were not willing to quit.

Conclusion: Present As demonstrated in this study, significant factors were lower socio-economic class, personal reasons and female sex, these factors must be taken into account while giving health education. Sound referral system can also minimize treatment delay.

Introduction:

Smoking is currently the single leading preventable cause of death. Anyone with a smoking habit has an increased chance of lung, cervical, and other types of cancer; respiratory diseases and cardiovascular disease. Tobacco use including both the smoking and the nonsmoking forms of tobacco is common in India. The few reports of tobacco use in different population groups report its prevalence from about 15% to over 50% among men. 1-3 Tobacco smoking in most parts of India except Punjab, Maharashtra and Sikkim is reported in about one fourth to half of adult men of over 15 years of age . Amongst women, smoking was more common in the North Eastern states, Jammu & Kashmir and Bihar, while most other parts of India had prevalence rates of about 4 percent or less. 4 In other reports, ever smoking among the school going youth of 13- 15 years age, studied as a part of the Global Youth Tobacco Survey (GYTS) study was reported on an average in up to about 10 percent individuals. 5-7

Certain factors that commonly play a role in initiation of tobacco use include exposure to tobacco marketing efforts, role modeling by parents, peer pressure and inadequate knowledge about injurious effects of tobacco use. Studies of such nature will be a useful tool for developing interventional programmes for the smokers.8

Aims & Objectives:

The objectives were to determine the prevalence and associated factors of current smoking among medical students.. and level of awareness regarding hazardous of tobacco smoking.

Methodology:

A cross-sectional study was carried out in three engineering colleges of Ahmadabad during April 2012 to August 2012. These colleges were selected with purposive sampling for feasibility. The total number of students in all four batches was 1000. Sample size was estimated 233 by using the formula $4pq/L^2$ where prevalence was taken as 30% and precision as 20%. After adding non response rate of 10%, an additional 27 subjects were included. Thus 260 subjects were selected purposively. Data was collected after explaining the purpose of the study and verbal consent was obtained from each patient. Total 10 students denied to give consent so only 250 students had responded for final analysis.

The participants were administered a self administered pre tested questionnaire. Smoking status was assessed as per the criteria laid down by WHO.7 “Current use” was defined as ‘having smoked at least once in the last 30 days preceding the survey’. “Never use” was defined as ‘having not smoked even once in their lifetime’. Students were not required to write their names to ensure confidentiality.

Analysis: The data collected was tabulated, coded and analyzed using Microsoft Excel and SPSS version 11.5 for windows. Chi-square test and Multiple logistic regression was carried out to test the significance and p value < 0.05 was considered significant.

Results:

Of the 260 students enrolled into the study, 250 were interviewed so response rate 96.2%. Mean age of students was 19.4 year with 1.9 year SD. Majority of them (55.6%) were in 20-23 years age group. 63 (25.2%) subjects were first year and 26(10.4%) were final year students.

Out of total 250 students, 47 (18.8%) were found to be current smokers. Smoking habit found more common in male (16% vs 2.8%, p< 0.05). As the age advanced, prevalence increased significantly ($\chi^2=8.34, p=0.003$). Similarly the prevalence was high among 3rd year medical students (42.5%) and was found to be significant ($\chi^2=14.1, p=0.003$). The prevalence was three times more compared to those without peer pressure group ($\chi^2=17.9, p=<0.001$).

Table 1: Prevalence of current smoker according various factors

Variable	No. of students	Prevalance	p value
Age group			0.003, X ² =8.34
16to17	6	0 (0)	
18 to 19	105	12 (11.4)	
20 to 21	129	31 (24.1)	
22 to 23	10	4 (40)	

College year			0.002, X ² =14.0
First	63	6 (12.8)	
Second	67	10 (21.2)	
Third	94	20 (42.5)	
Fourth	26	11 (23.4)	
Peer pressure			< 0.0001, X ² =83.4
Present	42	29 (69.0)	
Absent	208	18 (8.6)	
Parental history			< 0.0001, X ² =17.09
Yes	44	18 (40.9)	
No	206	29 (14.1)	

Majority of students (87.5%) were smoking less than 5 cigarette per day. More than 2/3rd (80%) of students were spending up to 200 rupees per week. Around 40% of students were not willing to quit.

Table 2: Distribution of current smoker according smoking related factors

Factors		Numbers	Percentage(%)
Frequency per day	1to5	41	87.2
	6to10	4	8.5
	>10	2	4.2

Table 3: Awareness on smoking related issues among students

	Ban in public place	Lung cancer	TB	Heart problem	Asthma	G.I. Malignancy	Dental staining
1st year student (63)	50	45	42	22	44	37	23
	79.4%	71.4%	66.7%	34.9%	69.8%	58.7%	36.5%
2nd year students (67)	54	54	49	46	49	31	51
	80.6%	80.6%	73.1%	68.7%	73.1%	46.3%	76.1%
3rd year students (94)	72	79	69	68	67	68	64
	76.6%	84.0%	73.4%	72.3%	71.3%	72.3%	68.1%
4th year students (26)	20	22	24	20	19	20	18
	76.9%	84.6%	92.3%	76.9%	73.1%	76.9%	69.2%
Total (250)	196	200	184	156	179	156	156
	78.4%	80.0%	73.6%	62.4%	71.6%	62.4%	62.4%
Chi-square value	0.440	4.214	6.251	27.690	0.206	14.089	25.188
p value	0.932	0.239	0.10	<0.001	0.977	0.003	<0.001

Table 4: Prevalance of current smoking: Multiple Logistic Regression Analysis

Variable	Odd ratio adjusted (95% CI)	p value
College year		
First & Second	3.12 (0.99 - 9.81)	0.05
Third & Fourth		
Age		
16 to 19	1.03 (0.31 - 3.34)	0.96
20 to 23		
Peer Pressure		
Absent	27.4 (10.9 - 68.3)	<0.005
Present		
Parental history		
Absent	4.81 (1.88 - 12.31)	0.01
Present		

Type of smoking	Beedi	8	17
	Cigarette	31	66
	Hukka	21	44.7
	Cigar	6	12.8
Initiation of Smoking	Before college	15	31.9
	During college	32	68.1
Reason for initiation	Enjoyment	30	63.8
	Peer pressure	29	61.7
	Depression	20	31.9
	To feel proud	6	12.8
	Force fully by friend	5	10.6
Money spent per week	0to200	38	80.9
	201to400	5	10.6
	>400	4	8.5
Proportion among smokers willing to quit	Yes	19	40.4
	No	28	59.6

One fifth of them were unaware of the public ban on smoking. The difference in awareness regarding different the injurious effects of smoking among different classes was found to be significant.

Discussion:

A study was conducted in three engineering colleges of ahmedabad. Proportion of smoking of some and other form was found 18.8% (47) among students. A high proportion of smoking was found in males than female (16% vs 2.8%, p< 0.05). The results of other studies among academic medical students showed same finding.3, Some studies done in India and abroad have shown low proportion rates ranging from 3% to 14.2%.1,4

The proportion of current smoking among third (42.5%)and fourth year students (23.4%) was higher in comparison to first year students. Among various smoking products used, cigarette is found to be most popular in smokers, followed by hukkah.

Two-third students started smoking during their academic college career. Similar finding was observed in other studies⁹ Enjoyment turned out to be reason in 2/3rd of smokers followed by peer pressure. More than ¾th smokers smoked for 1-5 times a day. Similarly a large number of smokers spend up to 200 ru-

pees per week.

There were widespread deficiencies in knowledge of smoking as an important causal factor in many diseases like gastro intestinal malignancy, heart problems among first and also second year students. Also there was a great lack in knowledge about any of the programmes about smoking. Also it was found that about 40% of smokers are trying to quit smoking or are willing to do so.

Conclusion & Recommendations:

In our study a large proportion of male students were engaged in smoking practices and it was found that smoking mainly resulted due to favor of enjoyment and peers pressure, it is required to counsel students about the aspects of smoking in ways possible for them to understand and follow heartedly.

A wide campaign should be started in college and school premises and impart knowledge about various national programmes about smoking. Counseling about smoking adverse effects on health on long run should be given mostly in first and second year students. Smokers among family members should also be treated together during counseling. It was good to see that at least 40% of smokers were willing to quit smoking but they were not aware about different method of quitting. They should be made aware about available methods.

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