TOBACCO USE PATTERNS AMONG MILITARY RECRUITS

Lt Col A BANERJEE *

ABSTRACT

All recruits reporting to a regimental centre between 01 Jan 98 to 31 Mar 99 (n=1049), were administered a questionnaire about their own and their family's tobacco use practices. The prevalence of smoking among recruits was 43%, while that of smokeless tobacco use was 34.1%. There was a significant association between parental tobacco use and peer pressure on the tobacco habits of recruits. Knowledge about harmful effects of tobacco use did have a role in restraining the tobacco habit among recruits.

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KEY WORDS: Military recruits; Smoking; Smokeless tobacco; Tobacco.

Introduction

Prevalence of tobacco use in a population is one important measure of the magnitude of the tobacco problem [1]. Besides, years of research in developed countries have identified certain factors that commonly play a role in initiation of tobacco use. Addressing them has resulted in slow but steady decline of the smoking habit in these countries. These factors include exposure to tobacco marketing efforts, role modelling by parents/other adults, peer pressure, inadequate knowledge about injurious effects of tobacco, etc.

Recruits enrolled for military training are in the age group 17-23 years. They are in the age group when lifestyle patterns both healthy and unhealthy are taking shape.

The aim of the present study was to find out the prevalence of tobacco use in military recruits and study the effects of parental tobacco use, peer pressure and knowledge about injurious effects of tobacco use on the habit.

Material and Methods

All recruits reporting to a regimental centre between 01 Jan 98 and 31 Mar 99 (n=1049), were the subjects of study. They hailed from all parts of the country and were in the age group 17-23 years. All of them were administered a structured questionnaire on smoking/tobacco use. The content and format of this questionnaire was derived from WHO published guidelines and previous research [1-3] and pretested in a pilot study. The subjects were asked to complete the questionnaire which was self administered anonymously, so as to reduce under-reporting of tobacco use. Questions were related to types of smoking/tobacco use, frequency, parental tobacco use, peer pressure and knowledge of harmful effects of tobacco use. The following criteria were used to define smoking status [3].

Non smoker: one who has never smoked.

Experimental smoker: tried smoking only once.

Occasional smoker: frequency less than once a week.

Light smoker: smoking 1-6 cigarettes/bidis in a week.

Regular smoker: smoking more than 6 cigarettes/bidis in a week.

Heavy smoker: Smoking 10-19 cigarettes per day.

Very heavy smoker: smoking >19 cigarettes per day.

Habit of smokeless tobacco was elicited by asking about habituation to different types of smokeless tobacco such as tobacco in pan, chewing, pan masala, etc.

Parental tobacco use was defined as habit of smoking/smokeless tobacco use by either or both parents. Peer pressure was decided by response to questions such as: a) whether the recruit used tobacco on persuasion of close friends, b) as imitation of the habit of close friends, or c) to impress close friends. Affirmative answer to any of these was taken as peer pressure.

Results

Prevalence of smoking (Table-1):

Out of the 1049 recruits, 598 (57%) were non-smokers. The remaining 451 (43%) were smokers, out of which 144 (13.7%) were experimental smokers, 86(8.2%) were occasional smokers, 55(5.2%) were light, 46 (4.4%) regular, 24 (2.3%) heavy and 10 (1.0%) were very heavy smokers. Eighty-six (8.2%), were ex-smokers. Of the smokers 266 (25.36%) used cigarettes, 68 (6.5%) bidis and 117 (11.2%) both cigarettes and bidis.

Prevalence of smokeless tobacco use (Table-2):

Out of the 1049 recruits, 358 (34.1%) used smokeless tobacco. Forty-four (4.2%) used tobacco in pan, 103 (9.8%) were chewing tobacco, 98 (9.3%) used pan masala and 71 (6.8%) used gutka.

Two-hundred and twenty eight (21.73%), recruits smoked as well as used smokeless tobacco.

Prevalence of parental smoking (Table-3)

Out of the total recruits 573 (54.6%) reported that none of their parents smoked; 451 (43%) said their fathers smoked, 8 (0.8%) reported their mothers smoked and 17 (1.6%) reported that both smoked.

* Classified Specialist (PSM) and Epidemiologist, Officer-in-Charge, Station Health Organisation, Air Force Station Amla, Dist-Betul, 460553.

TABLE 1
Prevalence of smoking

Smoking habit	Number of recruits	Percentage
Non smoker	598	57.0%
Experimental	144	13.7%
Occasional	86	8.2%
Light	55	5.2%
Regular	46	4.4%
Heavy	24	2.3%
Very heavy	10	1.0%
Ex-smoker	86	8.2%
Total	1049	100.0%

TABLE 2
Prevalence of smokeless tobacco use

Type of tobacco	Frequency	Percentage
Never used	691	65.9%
Tobacco in pan	44	4.2%
Chewing	103	9.8%
Pan masala	98	9.3%
Gutka	71	6.8%
Miscellaneous	31	3.0%
Others	11	1.0%
Total	1049	100%

TABLE 3
Prevalence of parental smoking

Parental smoking	Frequency	Percentage
None smoke	573	54.6%
Father smokes	451	43.0%
Mother smokes	8	0.8%
Both smoke	17	1.6%
Total	1049	100.0%

TABLE 4
Prevalence of parental smokeless tobacco use

Parental smokeless tobacco use	Frequency	Percentage
None use	732	69.8%
Father uses	258	24.6%
Mother uses	27	2.6%
Both use	32	3.1%
Total	1049	100.0%

Prevalence of parental smokeless tobacco use (Table-4)

Out of the total recruits, 732 (69.8%) reported none of their parents used smokeless tobacco, 258 (24.6%) reported their father used and 27 (2.6 %) reported their mother used, and 32 (3.1%) reported both parents used smokeless tobacco.

TABLE 5
Relation between parental smoking and recruits' smoking

Parental smoking	Recruits' smoking		Total
	Nonsmoker	Smoker	
Parent non smoker	360 (60.20%)	213 (47.23%)	573 (54.62%)
Parent smoker	238 (39.80%)	238 (52.77%)	476 (45.38%)
Total	598 (100%)	451 (100%)	1049 (100%)

Chi Sq = 16.94, p = 0.000039, OR = 1.69, 95% CI = 1.32, 2.16

TABLE 6
Relation between parental smokeless tobacco use and recruits' habit

Parental habit	Recruits' habit		Total
	Nonuser	User	
Non-user	527 (76.26%)	205 (57.26%)	732 (69.78%)
User	164 (23.74%)	153 (42.74%)	317 (30.22%)
Total	691 (100%)	358 (100%)	1049 (100%)

Chi sq = 39.49, p=0.0000001, OR = 2.40, 95% CI = 1.83, 3.15

TABLE 7
Effect of peer pressure on smoking habit

Peer pressure	Recruits' smoking habit		Total
	Nonsmoker	Smoker	
Present	169 (28.26%)	217 (48.12%)	386 (38.80%)
Absent	429 (71.74%)	234 (51.88%)	663 (63.20%)
Total	598 (100%)	451 (100%)	1049 (100%)

Chi sq = 42.73, p = 0.0000001, OR = 0.42, 95% CI = 0.33, 0.55

TABLE 8
Belief and smoking habit

Belief	Recruits' smoking habit		Total
	Nonsmoker	Smoker	
Injurious	530 (88.63%)	373 (82.70%)	903 (86.08%)
Not injurious	21 (3.51%)	16 (3.55%)	37 (3.53%)
Only heavy smoking injurious	47 (7.86%)	62 (13.75%)	109 (10.38%)
Total	598 (100%)	451 (100%)	1049 (100%)

Chi sq = 9.63, df = 2, p = 0.008123

Relation between parental smoking and recruit's smoking behaviour (Table-5) :

There was a correlation between parental smoking and the recruit being a smoker (Chi sq=16.94, p= 0.000039, OR=1.69, 95% CI between 1.32 and 2.16).

Relation between parental tobacco use and recruit's tobacco habit (Table-6)

Similarly, this was also related (Chi sq=39.49, p=0.0000001, OR=2.40. 95% CI between 1.83 and 3.15).

Effects of peer pressure (Table-7)

There was an influence of the peer or group pressure on the smoking habits of recruits (Chi sq=42.73, p=0.0000001,

OR=0.42.95% CI between 0.33 and 0.55).

Effect of the knowledge about harmful effect of tobacco use and smoking habit (Table-8)

Knowledge about the harmful effects did have a beneficial effect (Chi q=9.63, df=2, p=0.008123).

Discussion

In India it is estimated that 65% of all men use some form of tobacco (About 35% smoking, 22% smokeless tobacco, 8% both) [4].

Experimentation with cigarettes and tobacco in other forms is a common activity during young adulthood. Previous cross-sectional studies [3,5] have reported a strong relationship between parental smoking practices and that of their children. The present study also demonstrates a link between parental smoking/tobacco habits and those of their wards.

Similarly peer pressure to smoke appeared as a risk factor in the present study. Similar results have been reported by other workers [3]. Adoption of smoking may be perceived as a valuable means of cementing social bonds with peers.

Smoking behaviour and the influence of this on young people have been subject to considerable scrutiny and a variety of methodological approaches have been adopted in smoking education. Of particular interest has been the use of methods which address the social influences on smoking. Evans [6], identified peers, parents and the media as major sources of pressure and in response attempted to familiarize young people with these pressures and with ways of dealing with them. McAlister and others [7,8] developed the ideas further and added the use of peer leaders as educators, activities to increase social commitment not to smoke and the role-playing of situations that needed resistance to social pressure.

The present study has limited itself to estimating prevalence and influence of parental tobacco use, peer pressure and knowledge about the injurious effects on the recruits' tobacco habit. Other factors, such as exposure and vulnerability to tobacco marketing, avail-

ability and ease of access, etc have been excluded from the study. Though important among civilian population it was felt that these factors require long term national policies on tobacco advertisements/taxation rather than short term measures by the RMO's/regimental officers at training centres.

The Armed Forces can contribute to comprehensive tobacco control by promoting the health and fitness of its personnel and minimize its long-term health costs by adopting policies that favour a smoke/tobacco free life, such as giving protection from involuntary exposure to tobacco smoke in all indoor locations such as offices, barracks, messes, etc and discouraging sale of tobacco products in military establishments/wet canteens. Instructors in regimental centres (who can be taken as surrogate parent figures), should abstain from smoking.

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