

Received: 29.3 .2010
Accepted: 23.8.2010

Tobacco Quit Rates among Youth in an Urban Health Centre of Mumbai: A Cross Sectional Study

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<p>Background:</p> <p>Methods:</p> <p>Findings:</p> <p>Conclusion:</p> <p>Key words:</p>	<p>Abstract</p> <p>Tobacco use is a major cause of preventable death and disease in India. A nationally representative case-control study of smoking in India (2008) revealed that only 2% of smokers had spontaneously quit. This study was undertaken to assess tobacco quit rates among the youth in an urban health center and to determine barriers in quitting tobacco use.</p> <p>This cross sectional study was conducted among the youth attending Malwani Urban Health Centre. Hundred-thirty-three subjects were selected by a universal sampling method. Data was collected using a semi structured questionnaire.</p> <p>The majority of the youth were in the 18 to 21-year-old age group (43%), Male (82.4%), Muslim (65.4%) and unmarried (57.1%). The tobacco quit rate among these cases was 8.3%. Quitting tobacco use was significantly associated with the person's religion, marital status and living with the family.</p> <p>Fear of cancer was the most common reason for quitting tobacco. The major reason for initiation of tobacco consumption was peer pressure and betel quid was the most common form. Not experiencing any harmful effects of tobacco was the most common reason for not quitting tobacco.</p> <p>Youth, Tobacco quit rates, Peer pressure, Smoking.</p>
<p>Page count:</p> <p>Tables:</p> <p>Figures:</p> <p>References:</p> <p>Address of Correspondence:</p>	<p>7</p> <p>4</p> <p>0</p> <p>19</p> <p>Saurabh Ram BihariLal Shrivastava, Room No. 401 A, Anand Niketan Quarters, Fitwala Road, Elphinstone Road, Mumbai – 400013, Maharashtra, India. Email: drshrishri2008@gmail.com</p>

Introduction

Tobacco use including both the smoking and the non smoking forms of tobacco is common in India. The few reports of tobacco use in different population groups report a prevalence of about 15% to over 50% among men¹⁻⁴ which shows high variability for the non smoking forms. Tobacco smoking in most parts of India except Punjab, Maharashtra and Sikkim is reported in about one fourth to half of adult men over 15 years of age.⁵ Amongst women, smoking was more common in the North Eastern states, Jammu and Kashmir and Bihar, while most other parts of India had prevalence rates of about 4 percent or less. In other reports, ever smoking among the school going 13 to 15-year-olds which was studied as a part of the Global Youth Tobacco Survey (GYTS) study, reported an average of approximately 10 percent of the individuals.⁶⁻⁹

Each day, 55,000 children in India start using tobacco and about 5 million children under the age of 15 are addicted to tobacco. The Global Youth Tobacco Survey (GYTS) ¹ reported that in India

- Two in every ten boys and one in every ten girls use a tobacco product.
- 17.5% were current users of any form of tobacco and current use (defined as use in the past 30 days preceding the survey) ranged from 2.7% (Himachal Pradesh) to 63% (Nagaland).
- Many youth have the misconception that tobacco is good for the teeth or health.
- Starting use of tobacco products before the age of 10 years is increasing.
- Over one-third (36.4%) were exposed to second-hand smoke (environmental tobacco smoke or ETS) inside their homes.

Adolescent-type tobacco use is characterized by being driven by relationships, activities, positive and negative emotions and social ramifications, while adult-type smoking is defined by the dependence on nicotine. Although most youth do not become nicotine dependent until after 2 to 3-years of use, addiction can occur after smoking as few as 100 cigarettes¹⁰ or within the first few weeks¹¹. However, there are unique behavioral and social factors associated with their behavior and unlike adults, nicotine dependence may not be the primary reason reported for smoking¹². Personal

characteristics of adolescent tobacco users include low self-esteem, low aspirations, depression/anxiety and sensation seeking. This is subsequently associated with poor school performance, school absence, school drop-out, alcohol and other drug use. Teens who smoke are three times more likely to use alcohol and several times more likely to use drugs. Illegal drug use is rare among those who have never smoked¹³. Hence, this study was undertaken to assess tobacco quit rates among youth attending an urban health center and to determine barriers in quitting tobacco use.

Methods

A cross sectional study was undertaken in the urban field practice area of Seth Gordhandas Sunderdas Medical College and King Edward Memorial Hospital during the period of May 2010 to July 2010. All patients within the age group of 15 to 24 years (youth) were enquired about tobacco use in any form ever (the use of tobacco even once). Out of the total 477 youth patients who attended the urban health centre during the study period, 133 admitted consuming tobacco and were selected as the study subjects. These subjects were then interviewed face-to-face using a semi-structured questionnaire after obtaining their informed consent. The questionnaire consisted of subjects' socio-demographic details and details regarding their tobacco use. Institutional Ethics committee approval was sought. Data entry was done in Microsoft Excel Sheet and was analyzed using SPSS version 17 using frequencies, percentages and chi square test.

Operational Definitions

- **Youth:** Individuals between 15 and 24 years of age.¹⁴
- Tobacco use was classified as **ever use** (the use of tobacco even once) and **current use** (use of tobacco within 30 days preceding the study).
- **Tobacco quitting** was classified as quitting tobacco use in all forms for at least 1 year.

Results

The study population included 133 subjects of which 104 (78.2%) were male and 29 (21.8%) were female. Tobacco quit rate was 8.3% among the study subjects (6.7% among the male and 13.8% among the female). Table 1 show a

significant difference between the tobacco quitting rate and age of subjects pointing to 72.3% of the quitters in the age group of 21-24 years. It also shows the socio-demographic profile of the study subjects according to the tobacco quitting rates. Religion was significantly associated with quitting tobacco use. No association was found between quitting tobacco use and education, occupation or income. Table 1 also show that married subjects who were staying with their family had significantly better tobacco quitting rates than married subjects who were not staying with their family or unmarried subjects. Table 2 show that dry tobacco with lime /betel quid was the most common form of tobacco used (55.6%). Mishri was the most common tobacco

used by females (79.3%) while the majority of males used cigarette or bidi as (smoke form, 70.2%), gutkha (56.4%) and kharra (30.8%). Alcohol/Taadi (44.2%) and charas/heroin (16.3%) were found to be the other substances used. No significant association was found between tobacco quit rates and the number of cigarettes smoked per day. Table 3 shows the reasons for initiation of tobacco use—the most common reason was found to be peer pressure (59.4%) followed by history of tobacco use in the family (49.6%). Toothache was cited as the most common reason for initiation by females (72.4%). Thirty-one percent of the subjects had started tobacco use as it provided a feeling of freshness and relief from stress while 27.8% were influenced by television.

Table 1. The association between tobacco quitting and different socio demographic characteristics

Socio Demographic Characteristics		Tobacco Quitting		Total	P value
		Yes	No		
Age (years)	15–18	0	31 (25.4%)	31 (23.3%)	P < 0.05
	18–21	3 (27.3%)	53 (43.4%)	56 (42.1%)	
	21–24	8 (72.3%)	38 (31.5%)	46 (34.6%)	
Sex	Male	7 (6.7%)	97 (93.3%)	104 (100%)	P > 0.05
	Female	4 (13.8%)	25 (86.2%)	29 (100%)	
Religion	Hindu	8 (17.4%)	38 (82.6%)	46 (100%)	P < 0.05
	Muslim	3 (3.4%)	84 (96.6%)	87 (100%)	
Education	Illiterate	1 (7.1%)	13 (92.9%)	14 (100%)	P > 0.05
	Primary	1 (2.9%)	34 (97.1%)	35 (100%)	
	Secondary	3 (6.4%)	44 (93.6%)	47 (100%)	
	Above	6 (16.2%)	31 (83.8%)	37 (100%)	
Occupation	Unemployed	1 (3.8%)	25 (96.2%)	26 (100%)	P > 0.05
	Unskilled	1 (2.7%)	36 (97.3%)	37 (100%)	
	Semi-skilled	3 (6.7%)	42 (93.3%)	45 (100%)	
	Skilled	2 (11.1%)	16 (88.9%)	18 (100%)	
	Above	4 (57.1%)	3 (42.9%)	7 (100%)	
Marital status	Married Staying with family	6 (22.2%)	21 (77.8%)	57 (100%)	P < 0.05
	Staying without family	2 (6.7%)	28 (93.3%)		
	Unmarried / single Staying with family	2 (5.9%)	32 (94.1%)	76 (100%)	P > 0.05
Staying without family	1 (2.4%)	41 (97.6%)			
Total		11 (8.3%)	122 (91.7%)	133 (100%)	

Table 2. Type of substance use among youth (N=133) in an urban health center of Mumbai

	Type	Male (n = 104)	Female (n = 29)	Total (n = 133)
Tobacco	Cigarette/Bidi	73 (70.2%)	0	73 (54.9%)
	Gutkha	57 (56.4%)	11 (37.9%)	68 (51.1%)
	Kharra	32 (30.8%)	6 (20.7%)	38 (28.6%)
	Mishri	13 (12.5%)	23 (79.3%)	36 (27.1%)
	Dry tobacco with lime /Betel quid	59 (56.7%)	15 (51.7%)	74 (55.6%)
Alcohol/Taadi		46 (44.2%)	0	46 (34.6%)
Charas/Heroin		17 (16.3%)	0	17 (12.8%)

Table 3 also show the reasons for quitting tobacco use of which fear of cancer was found to be the most common reason for quitting tobacco use (72.7%) followed by poor oral health (27.2%). Pregnancy was the most common reason for quitting tobacco use among females (75%). In the enquiry regarding the type of help sought for quitting tobacco, the majority (45.5%) quit tobacco with the help of their family members and friends, while 27.3% quit either themselves or with the help of de-addiction centre.

Table 4 show that 32% of the subjects were willing to quit tobacco use. A statistically

significant difference was found between sex and willingness to quit. Of the 39 subjects willing to quit tobacco, 12 attempted quitting tobacco use on their own with their family support of which nine failed and three had not consumed tobacco in any form since the last 5 to 8 months. Table 4 also demonstrates that not perceiving any harmful effects of tobacco was the most common barrier in quitting tobacco use (89.3%). Some subjects (53.3%) believed that tobacco use had become a part of their day to day life. Stress relief (54.6%) and peer pressure (41.2%) were other important barriers to quitting tobacco use among males.

Table 3. Reasons for tobacco initiation and quitting among youth (n = 133) in an urban health center of Mumbai

	Reasons	Male (n = 104)	Female (n = 29)	Total (n = 133)
Tobacco initiation	Peer pressure	79 (76%)	0	79 (59.4%)
	Family members & neighbours asked subjects to get tobacco from shops	41 (39.4%)	7 (24.1%)	48 (36.1%)
	<i>Toothache</i>	2 (1.9%)	21 (72.4%)	23 (17.3%)
	History of tobacco use in family	53 (51%)	13 (44.8%)	66 (49.6%)
	Influenced by television	37 (35.6%)	0	37 (27.8%)
	Feeling of freshness / Relief from stress	42 (40.4%)	0	42 (31.6%)
Tobacco quitting		Male (n = 7)	Female (n = 4)	Total (n = 11)
	Fear of cancer	6 (85.7%)	2 (50%)	8 (72.7%)
	Poor oral health	2 (28.6%)	1 (25%)	3 (27.2%)
	Fear of getting addiction / Fear of parents	1 (14.3%)	0	1 (9%)
	Due to pregnancy	0	3 (75%)	3 (27.2%)

Table 4. Willingness and Barriers in quitting tobacco among youth (n = 122) in an urban health center of Mumbai

		Male (n = 97)	Female (n = 25)	Total (n = 122)
Willingness to Quit*	Yes	22 (22.7%)	17 (68%)	39 (32%)
	No	75 (77.3%)	8 (32%)	83 (68%)
Barriers in Quitting Tobacco	<i>No harmful effects of tobacco experienced</i>	88 (90.7%)	21 (84%)	109 (89.3%)
	Stress relief	53 (54.6%)	1 (4%)	54 (44.3%)
	A part of day to day life	49 (50.5%)	16 (64%)	65 (53.3%)
	Peer pressure	40 (41.2%)	0	40 (32.8%)
	Just for fun	27 (27.8%)	0	27 (22.1%)

* P < 0.05

Discussion

The tobacco quit rate in the present study was 8.3% among youth which is much higher than the study by Jha et al who found a spontaneous quit rate of 2% in his case-control study.¹⁵

In the present study, tobacco use among 15 to 18 year olds was 23.3% which is quite less compared with a study by Dongre et al in Wardha which was 60.4%.¹⁶ Religion was found to be significantly associated with tobacco quitting in contrast to a study carried out by Medhi et al in Assam in which no such association was found.¹⁷

A significant association was observed between tobacco quitting and married subjects staying with their family. About 55% of the subjects used tobacco in the form of cigarettes or bidi while the majority of female subjects used tobacco in the smokeless form in this study and similar results were obtained for smokeless tobacco use by Medhi et al (56.9% males and 49.6% females) while the prevalence of the smoking form was only 2.2% (4.7% in males and

0.5% in females).¹⁷

In a study performed by Joshi et al. in Jaamnagar, smokeless tobacco was found to be the most prevalent form of tobacco consumed (51.3%) among the 17 to 19-year-old age group.¹⁸ Peer pressure (76%) among males and toothache (72.3%) among females were the most common reasons cited for initiation of tobacco use. Similar results were obtained by Dongre et al¹⁶ Fear of cancer (72.7%) followed by poor oral health (27.2%) was found to be the most common reason for quitting tobacco use while health problems followed by religious vows and societal pressure were found as common reasons for quitting tobacco use in a study done by Joshi et al.¹⁸

Not experiencing any harmful effects because of tobacco usage (89.3%) was the most important barrier in quitting tobacco use among both genders which was similar to the results obtained by Murthy et al.¹⁹

Conflict of interest: The Authors have no conflict of interest.

References

- Reddy KS, Gupta PC. Report on tobacco control in India. In: Committee on Preventing the Global Epidemic of Cardiovascular Disease, Editor. Promoting Cardiovascular Health in the Developing World: A Critical Challenge to Achieve Global Health. Washington, DC: National Academies Press; 2010. p. 49-56.
- Malaowalla AM, Silverman S, Mani NJ, Billimoria KF, Smith LW. Oral cancer in 57,518 industrial workers of Gujarat, India. A prevalence and follow up study. *Cancer* 1976; 37(4): 1882-6.
- Behera D, Malik SK. Chronic respiratory disease in Chandigarh teachers-a follow-up study. *Indian J Chest Dis Allied Sci* 1987; 29(1): 25-8.
- Pandey GK, Raut DK, Hazra S, Vajpayee A, Pandey A, Chatterjee P. Patterns of tobacco use amongst school teachers. *Indian J Pub Health* 2001; 45(3): 82-7.
- Rani M, Bonu S, Jha P, Nguyen SN, Jamjoum L. Tobacco use in India: prevalence and predictors of smoking and chewing in a national cross-sectional household survey. *Tobacco Control* 2003; 12(4): e4.
- Tobacco use among youth: a cross country comparison. *Tob Control* 2002; 11(3): 252-70.
- Tobacco and youth in the South East Asian region. *Indian J Cancer* 2002; 39(1): 1-33.
- Sinha DN. Exposure vs targeting youth in north and east of India. *Health for the Millions* 2003;

- 29-30: 15-22.
9. Jindal SK, Aggarwal AN, Gupta D, Kashyap S, Chaudhary D. Prevalence of tobacco use among school going youth in North Indian States. *Indian J Chest Dis Allied Sci* 2005; 47(3): 161-6.
 10. Committee on Substance Abuse. American Academy of Pediatrics Committee on Substance Abuse. Tobacco's toll: implications for the pediatrician. *Pediatrics* 2001; 107(4): 794-8.
 11. DiFranza JR, Rigotti NA, McNeill AD, Ockene JK, Savageau JA, St Cyr D, et al. Initial symptoms of nicotine dependence in adolescents. *Tob Control* 2000; 9(3): 313-9.
 12. Sanchez del M. Youth Smoking Cessation - What can we do? [Online]. 2005 May 1; Available from: URL: <http://www.fhi.se/Documents/Vart-uppdrag/tobak/youth-smoking-cessation-0505.pdf>
 13. Tobacco use: a pediatric disease [Online]. 2003; Available from: URL: http://www1.umn.edu/perio/tobacco/tob_pediatric_disease.html/
 14. United Nations General Assembly [Online]. 1981; Available from: URL: http://en.wikipedia.org/wiki/United_Nations_General_Assembly/
 15. Jha P, Jacob B, Gajalakshmi V, Gupta PC, Dhingra N, Kumar R, et al. A nationally representative case-control study of smoking and death in India. *N Engl J Med* 2008; 358(11): 1137-47.
 16. Dongre A, Deshmukh P, Murali N, Garg B. Tobacco consumption among adolescents in rural Wardha: where and how tobacco control should focus its attention? *Indian J Cancer* 2008; 45(3): 100-6.
 17. Medhi GK, Hazarika NC, Mahanta J. Tobacco and alcohol use among the youth of the agricultural tea industry in Assam, India. *Southeast Asian J Trop Med Public Health* 2006; 37(3): 581-6.
 18. Joshi U, Modi B, Yadav S. A study on prevalence of chewing form of tobacco and existing quitting patterns in urban population of Jamnagar, Gujarat. *Indian J Community Med* 2010; 35(1): 105-8.
 19. Murthy P, Saddichha S. Tobacco cessation services in India: recent developments and the need for expansion. *Indian J Cancer* 2010; 47(Suppl 1): 69-74.

میزان ترک سیگار در میان جوانان مرکز بهداشتی بمبئی: یک مطالعه مقطعی

سوراب رام بی هاریلال شیرواستاوا*، پراتیک سودهاکار باب هات*

تاریخ دریافت: ۸۹/۱/۹

تاریخ پذیرش: ۸۹/۶/۱

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چکیده

مصرف سیگار یکی از دلایل اصلی قابل پیشگیری مرگ و میر در هند می‌باشد. یک مطالعه مورد شاهدهی ملی از مصرف سیگار در هند در سال ۲۰۰۸ میلادی نشان داد که تنها ۲ درصد افرادی که سیگار می‌کشند ترک سیگار داشته‌اند. این مطالعه با هدف ارزیابی میزان ترک سیگار در جوانان یک مرکز بهداشتی روستایی هند و تعیین موانع ترک سیگار انجام شد.

این مطالعه مقطعی در میان جوانان مراجعه کننده به مرکز بهداشتی روستایی سالوانی انجام شد. ۱۳۳ مراجعه کننده با روش نمونه گیری Universal انتخاب گردیدند. جمع‌آوری اطلاعات به وسیله یک پرسش‌نامه نیمه ساختار یافته انجام شد.

اکثریت مراجعه کنندگان سنین بین ۲۱-۱۸ سال (۴۳ درصد)، مسلمان (۶۵/۴ درصد)، مجرد (۵۷/۱ درصد) و مرد (۸۲/۴ درصد) داشتند. میزان ترک سیگار در بین این افراد ۸/۳ درصد بود. ترک سیگار به طور عمده مرتبط با بستگان آن‌ها، وضعیت تأهل و زندگی با خانواده بود.

ترس از سرطان مهم‌ترین علت ترک سیگار بود. دلیل اصلی شروع مصرف سیگار فشار همسالان و شایع‌ترین نوع مصرف Betel quid بود. مهم‌ترین علت عدم ترک سیگار نداشتن تجربه تأثیرات مواد مخرب بود.

جوانان، میزان ترک سیگار، فشار همسالان، کشیدن سیگار.

مقدمه:

روش‌ها:

یافته‌ها:

نتیجه‌گیری:

واژگان کلیدی:

تعداد صفحات: ۷

تعداد جدول‌ها: ۴

تعداد نمودارها: -

تعداد منابع: ۱۹

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