

## Original article

## Tobacco habits among the youth in Bangalore city, India: A survey

Premalatha BR<sup>1</sup>, Saileela A<sup>2</sup>, Doddawad VG<sup>3</sup>, Vidya Priyadarshini DS<sup>4</sup>, Banavar SR<sup>5</sup>

<sup>1</sup>Dr Premalatha BR  
MDS, Reader

<sup>2</sup>Dr Annavajjula Saileela  
MDS, Post-Graduate student  
saileelaannavajjula@gmail.com

<sup>3</sup>Dr Vidya G Doddawad  
MDS, Reader  
drvidyagd@gmail.com

<sup>4</sup>Dr Vidya Priyadarshini DS  
drvidyapd@yahoo.co.in

<sup>5</sup>Dr Spoorthi Ravi Banavar  
MDS, Reader  
drspoorti@gmail.com

<sup>1,2,3,5</sup>Department of Oral Pathology &  
Microbiology

<sup>4</sup>Department of Periodontics

<sup>1,3,4</sup>JSS Dental College and Hospital, JSS  
University, Mysore, India

<sup>2,5</sup>Faculty of Dental Sciences, MS  
Ramaiah University of Applied  
Sciences, Bangalore, India

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Correspondence to:

Dr Premalatha BR  
9900281290  
prema.raaj@gmail.com

## ABSTRACT

**Background:** Oral cancer is globally recognized as a major oncological problem. Tobacco in the form of chewing/smoking is one of the main etiological factors of oral cancer. Tobacco habits are usually initiated during adolescence; hence this survey focuses on eliciting the various aspects of the tobacco habit among the youth.

**Objectives:** To elicit and evaluate various aspects, practises of tobacco habits; attitude towards the habit and oral cancer awareness among the urban youth.

**Material and methods:** A cross-sectional questionnaire-based survey was conducted among 1000 individuals in the age group of 15-24 years in Bangalore city. The target group comprised of college students and young officials. The results were tabulated and subjected to statistical analysis using SAS software.

**Results:** The findings in our study showed tobacco usage among 15.8% (158) of the study population, among which there were no females. Out of 158, 13.4% smoked, 0.9% had the habit of chewing tobacco and 1.5% had both. 17 - 18 years was the most common age at which the habit was initiated. 28% responded regarding tobacco associated oral cancer, out of which 3% were unaware that tobacco causes oral cancer. 6% had the intention of quitting the habit.

**Conclusion:** Oral cancer awareness programs are the need of the hour. The vulnerable, impressionable young adult age group should be urgently addressed. It is the responsibility of every oral health professional to impart knowledge and motivate the youth to put an end to the tobacco menace.

**Key words:** Chewing tobacco, oral cancer, smoking, tobacco,

tobacco habits

## Introduction

Tobacco usage is one of the leading preventable causes of death in both developed and developing countries. Oral cancer holds the eighth position in the cancer incidence ranking worldwide; with epidemiologic variations between different geographic regions. It is the third most common malignancy in south-central Asia. More than six million people die globally from the effects of tobacco every year. Every eight seconds someone, somewhere in the world, dies as a result of tobacco use. It is reported by the year 2030; the death toll is likely to exceed eight million per year. [1] Its usage causes

oral cancer predominantly of lip, tongue and pharynx. [2] The World Health Organization expects a rising worldwide oral squamous cell carcinoma (OSCC) incidence in the next decades. [3]

Tobacco smoke contains many carcinogenic combustion products. [4] Tobacco is used chiefly in smoking and smokeless forms. The various forms of smoking tobacco are: cigarettes, chutta, beedi, hookah etc. Smokeless tobacco forms include gutkha, snuff, paan, zarda etc. The use of tobacco in any form increases the risk of oral cancer. [2] Little is known about tobacco habits, awareness about its health hazards and initiation of

the habit among the youth. We therefore decided to carry out a cross-sectional questionnaire based survey to elicit and evaluate various aspects and practices of tobacco habits; attitude towards the habit and oral cancer awareness among the urban youth in Bangalore city (India).

### Material and Methods

The sample consisted of 1000 individuals in the age range of 15-24 years. It comprised of students and young officials. Predesigned questionnaire forms were personally handed out and few were e-mailed to the participants. Informed consent was obtained from each subject. The questionnaire focused mainly on 4 categories: Respondents background characteristics; various aspects of smoking or chewing tobacco habit; attitude of the population towards the habit and oral cancer awareness. In addition, visit to the dentist for an oral check-up were included among other questions.

The data collected were entered into Excel spread sheets and subjected to statistical analysis using SAS software (Statistical Analysis System). Descriptive statistics (percentages) was used to break down each survey question and generate insights wherever necessary.

### Results

The study was conducted among 1000 individuals, out of which 64% were males and 36% were females. The prevalence of tobacco habits was noted only in males with no female admitting to the habit. The overall prevalence of tobacco habits in our study population was 15.8% out of which 13.4 % had smoking habit, 0.9% had chewing habit and 1.5% had both (Figure 1). 17 - 18 years was the most common age at which the habit was initiated. About 1% started the habit as young as 10 years of age. (Fig.2) The most common

reason quoted for initiation of the habit was influence by peers (50%). (Fig.3)

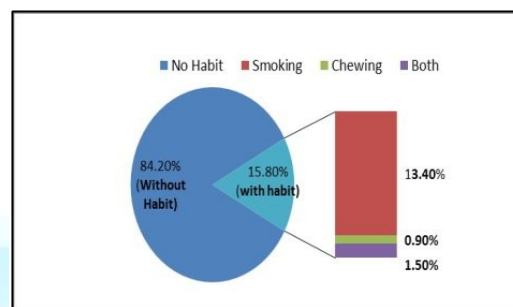


Fig. 1 Prevalence of tobacco habits among the study population

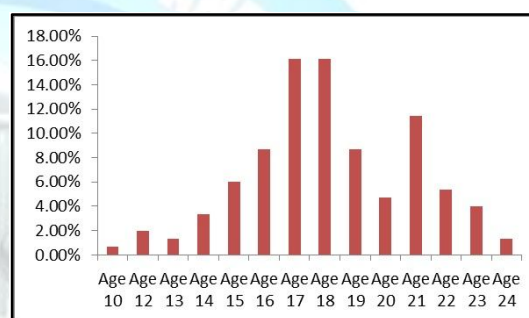


Fig. 2 Age of initiation of the tobacco habit

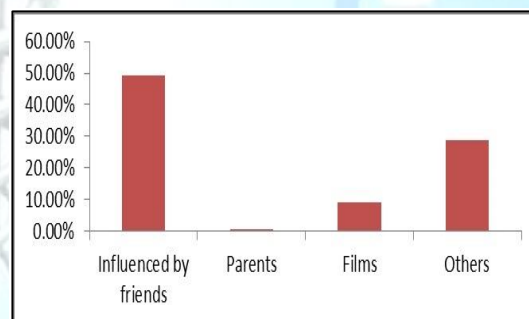


Fig. 3 Initiating cause of the tobacco habit

Various aspects of the smoking tobacco habit are elaborated in Table 1. Similarly Table 2 elaborates the various aspects of chewing tobacco habit. The most common reason for smoking was mentioned as "boredom" (45%) followed by stress relief (20%); whereas for tobacco chewing, "addiction" (58%) followed by stress relief (23%) were quoted. Around 66% subjects smoked 1-5 cigarettes/day and the most preferred locations for smoking were public places followed by home. Most

commonly used smokeless tobacco in our survey was gutkha (33%). About 54% used more than 5 chewable tobacco/ day. Most of them preferred chewing tobacco without additives (81%).

Table 3 shows the oral health status of the study population. Most of the respondents had no problem in the oral cavity (94%). About 3% experienced burning sensation. Table 4 includes the attitude of the population towards the habit. Only 6% of the respondents had intention of quitting. About 10% have sought medical help for cessation of the habit.

The awareness about oral cancer due to tobacco usage among the study population is depicted in (Figure 4). Among 1000 participants, 280 responded regarding oral cancer awareness. Out of 252 (25%) who were aware of oral cancer, 34.9% had the habit and out of 28 (3%) individuals who were unaware of oral cancer, 75% had the habit. Percentage of people who visited the dentist for routine oral examination is shown in (Figure 5). Only 12% of the study group has visited a dentist.

**Table 1: Various aspects and practises of the smoking tobacco habit**

<b>1. Reason for smoking</b>	<b>Boredom</b>	<b>45%</b>
	An addiction	13.40%
	Stress relief	20.13%
	For motivation	7.38%
	For weight loss	0.67%
	Style statement	9.40%
	For alertness/energy	0.67%
	Others	3.35%
<b>2. Smoking and its frequency?</b>	Cigarettes	1- 5 in number - 66.45%
		6-10 in number – 26.85%
		11-15 in number – 5.36%
		>15 in number – 0.67%
	Bidis	1 – 3 in number – 0.67%
<b>3. Where do you smoke?</b>	Home	19.46%
	Public areas	53.02%
	College	8.05%
	Workplace	5.37%
	Others	14.1%

**Table 2: Various aspects and practises of chewing tobacco habit**

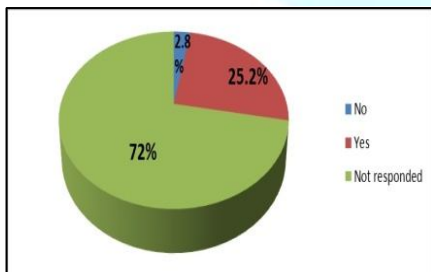
<b>1. Reason for chewing tobacco</b>	<b>Boredom</b>	<b>8%</b>
	An addiction	58%
	Stress relief	23%
	For motivation	8%
	For weight loss	0
	Style statement	3%
<b>2. Frequency of the habit?</b>	For alertness/energy	0
	1-5 in number	45.85%
	> 5 in number	54.15%
<b>3. Do you add any additives to chewing tobacco?</b>	No	80.50%
	Betel nut	8%
	Lime	8%
	Others	3.5%

**Table 3: Oral health status of the population**

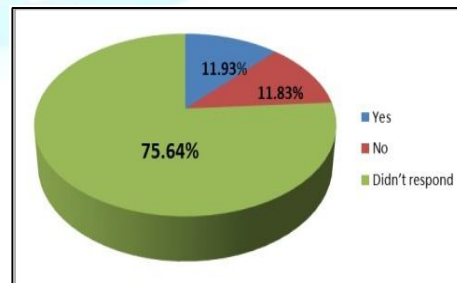
<b>1. Do you experience any problem in the mouth, because of chewing /smoking tobacco habit</b>	<b>No</b>	<b>93.87%</b>
	Burning sensation	3.07%
	Roughness	1.84%
	Bleeding gums	0.61%
	Difficulty in mouth opening	0.61%

**Table 4: Attitude towards the habit**

<b>1. Do you have any intention of quitting the habit</b>	<b>Yes</b>	<b>5.67%</b>
	No	8.15%
	Didn't respond	86.18%
<b>2. Have you taken any medical help (de-addiction) to stop the habit?</b>	Yes	10.10%
	No	0.70%
	Not responded	89.20%



**Fig. 4 Awareness about oral cancer as a result of tobacco usage**



**Fig. 5 Visit to the Dentist**

## Discussion

The overall prevalence of tobacco usage in our survey was 15.8%. This percentage is higher than 11.2% reported among school children in Noida<sup>[5]</sup> and 5.5% reported in school children in Kannur district, Kerala.<sup>[6]</sup> Other studies have reported high prevalence percentage of tobacco usage as 33.4%,<sup>[7]</sup> 35.9%<sup>[8]</sup> and 81.67%<sup>[2]</sup> in North East Nigeria, Kelantan state (Malaysia) and Guntur (India) respectively. Women in developing countries tend to smoke less, and this may be due to socio-cultural or religious reasons.<sup>[7]</sup> Accordingly, the zero prevalence of tobacco habits among our young female participants may simply be a reflection of a cultural taboo, and may be an underestimate of the true female prevalence, since many young females maybe reluctant to admit to a tobacco habit.

In the present study 72% people started the habit between the ages of 15 – 24 years. A study on Guntur population in the age group of 19-28 years showed that 76.51% of the respondents had tobacco habit.<sup>[2]</sup> 17 - 18 years was the most common age at which the habit was initiated in our study. In Northeast Nigeria, majority of smokers (71%) started smoking between 13 and 15 years.<sup>[7]</sup> In a study conducted in Kerala the highest prevalence was observed among boys in the age group of 18 followed by 15 and 16 years.<sup>[6]</sup>

One of the important observations in our study was that some individuals started the tobacco habit as early as 10 years of age. Another study in Noida, India showed an alarming trend of nearly 70% boys and 80% girls up to the age of 15 years initiating the tobacco habit before the age of 11 years.<sup>[5]</sup> Once nicotine dependence is initiated in adolescence, it tends to persist into adult years. Moreover, the younger the age, at which

smoking is initiated, the harder it seems to quit later.<sup>[7]</sup> This suggests the need for a school-based tobacco awareness program focusing on prevention of habit initiation. According to our study, peer influence played a major role in the initiation of tobacco habits (50%) which is similar to the results of a Malaysian study.<sup>[8]</sup> Another study states that the largest group of smokers was influenced to start smoking by one or both parents, siblings or friends, and about 25% of males and 21% females were influenced by TV commercials.<sup>[7]</sup> Parents and friends played an equal role in initiation of the habit in a study conducted in Kerala.<sup>[6]</sup> Hence anti-tobacco programs, apart from spreading awareness on the ill effects of tobacco usage, should also focus on educating the young adult population in tackling the peer pressure.

The most preferred places for smoking by our study population were public areas (53%) followed by home (19%). According to a study in Dhaka, Bangladesh, chain smokers preferred smoking everywhere. The occasional and sudden smokers mainly preferred public places followed by home, toilets and designated smoking places equally.<sup>[9]</sup> In a study on university students of Palestine, smokers had more negative attitude towards tobacco ban in public areas and college campuses and towards educational programs about the harmful effects of smoking.<sup>[10]</sup>

Exposure to second hand smoke causes serious diseases and death in non-smoking population. In non-smoking adults, tobacco is responsible for approximately three thousand lung cancer deaths each year. According to Tufts University Health and Nutrition Letter, thirty-five thousand non-smokers die every year from diseases caused by second hand smoke.<sup>[9]</sup> Hence, continued efforts are needed to educate the public

about the dangers of second hand smoking and the benefits of smoke free indoor environments and public places.

In our study, the percentage of people using smokeless tobacco was 2.4% and the most commonly used form was gutka. Our results are closer to studies in United States, where the national prevalence of smokeless tobacco use was 3.1% among adults aged 18 to 24 years in 2005<sup>[11]</sup>; and is less when compared to a study conducted on baseball players (31.3%) in United States.<sup>[12]</sup> In our study, significant number of subjects did not respond on questions about chewing tobacco, which shows that people are unaware about smokeless tobacco and its effects on oral cavity. widespread knowledge of hazardous effect of smokeless tobacco is important. Public should not be fooled into thinking that a tobacco product called "smokeless" is "harmless".

Questions regarding attitude towards the habit were not answered by most of the subjects in the present study, which showcases the carelessness of the population towards the ill-effects of tobacco usage. 25% of our respondents had awareness about tobacco induced oral cancer. But, only 6% with the habit had an intention of quitting it. Similarly, in the Guntur Study, 64% of respondents were aware of oral cancer out of which only 22.67% were willing to quit it.<sup>[2]</sup> Information about health hazards is usually insufficient for change. In addition, the benefits of quitting should also be stressed in current prevention programs among the young adults.<sup>[8]</sup>

Scientific evidence shows that graphic health warnings are the most cost effective intervention to educate people regarding ill-effects of tobacco. There is also considerable evidence that tobacco advertising and promotion encourage adolescents to smoke and that increasing

the price of cigarettes discourages young people from starting the habit. Anti-tobacco education and awareness should be adopted in the curriculum of schools and colleges. Legislative restrictions on smoking in enclosed public places need to be enforced. As children have easy access to tobacco products in developing countries, laws need to be implemented prohibiting the sale of cigarettes to them.<sup>[7]</sup>

### Conclusion

As oral health professionals, it is our responsibility to impart awareness on tobacco induced oral cancer, which is an easily preventable condition. As the tobacco habits are initiated in a young age, extensive awareness programs targeting this impressionable age group is the need of the hour. It is better to prevent the initiation of the habit than trying to stop it!

Promising strategies may include: graphic health warnings, ban on cigarette advertising, higher tobacco taxes, strict laws prohibiting smoking in public places and sale of tobacco products to children. Tobacco control and cessation programs therefore need much more importance from public health point of view and interventional measures need to be strengthened further.

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