



## Knowledge of Tobacco Vendors On “Cigarettes and Other Tobacco Products Act (COTPA)” in Bengaluru City, India.

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### Abstract

Mortalities associated with tobacco are very high, making it a disease of public health importance. The “Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act (COTPA)” has been formulated to control this epidemic. Information on knowledge of tobacco vendors regarding COTPA is necessary to effectively implement the legislation as they may influence tobacco use by making cigarettes easier to procure. Hence, this present study was undertaken to determine the knowledge of tobacco vendors on COTPA in Bengaluru city.

**Study design:** Cross-sectional questionnaire study.

### Methods:

A cross-sectional questionnaire based study was carried out on a multistage random sample of 480 tobacco vendors in Bengaluru city, India. The vendors or the shop owners manning the tobacco outlets were interviewed for personal socio-demographic details, duration of existence of the shops and their knowledge on COTPA.

### Results:

The mean age of the tobacco vendors was  $40.8 \pm 9.8$  years and majority of them were males (96.3%). Overall awareness about COTPA was 46.2%. Awareness on ban on smoking on public places was found to be highest which was 70.4%. Knowledge on violation of the act was found to be least which was only 8.5%. About 60.8% said that the tobacco consumption remained the same even after the implementation of COTPA.

### Conclusion:

The present study indicates that participants have inadequate and inappropriate knowledge on COTPA. Enacting of the law with robust measures for enforcement will lead to widespread knowledge on COTPA and help in tobacco control legislation in the city of Bengaluru.

**Keywords:** Attitude, Awareness, COTPA, Bengaluru, Tobacco

### Introduction

Tobacco addiction is a global epidemic.<sup>1</sup>Tobacco contributes to 5 million deaths per year globally. According to World Health Organization(WHO), tobacco kills more people annually than AIDS, alcohol, other addictions (drugs) and accidents puttogether.<sup>2</sup>Total tobacco-attributable deaths are projected to rise to 8.3 million in 2030, and 80% of

these deaths will be in the developing countries.<sup>3</sup> Tobacco is a risk factor for six of the eight leading causes of deaths in the world.<sup>4</sup>Global Adult Tobacco Survey (GATS) - India 2009–2010 estimates that 34.6% adults in India are current tobacco users with 47.9% males and 20.3% females. To add to the brunt, almost one-third (29.9%) of adults aged 15 years and above are exposed to second-hand smoke in

workplaces, 52.3% at home, and 29% at other publicplaces.<sup>1</sup>Nearly two in five (38%) adults in rural areas and one in four (25%) adults in urban areas use tobacco in some form.<sup>5</sup>Bidi and cigarette smokers die 6–10 years earlier than their non-smoking counterparts. Tobacco consumption imposes high health-care and productivity costs across India. In 2004, direct health-care costs attributable to tobacco reached 1.2 billion USD, 4.7%of India's total national health-care expenditure.<sup>6</sup>A recent study reveals, in India, the burden of tobacco related cancer was alarmingly high, contributing to almost 120,000 deaths in 2010 - over 40% of male, and nearly 20% of female cancers (Centre for Global Health Research, 2012).<sup>7</sup>

Awareness about hazardous health effects of tobacco has increased over time owing to widespread campaigns in media, but its role alone towards attainment of tobacco free India remains questionable.<sup>8</sup>

Adoption of a WHO Framework Convention on Tobacco Control (WHO FCTC) by the World Health Assembly on 24th May 1999 was an important landmark to achieve comprehensive tobacco control worldwide.<sup>9</sup> The Government of India enacted The Cigarettes and Other Tobacco Products (COTPA) Act on May 18, 2003.<sup>5</sup> For effective implementation of tobacco control, knowledge regarding tobacco control is necessary. Not many studies have been done on awareness of tobacco vendors regarding Cigarettes and Other Tobacco Products Act (COTPA).<sup>2</sup>Hence, the present study was undertaken among tobacco vendors in Bengaluru city with an aim to assess the knowledge regarding Cigarettes and Other Tobacco Products Act (COTPA).

### Methods:

A cross-sectional questionnaire based study was conducted in Bengaluru, to assess the knowledge of retail tobacco vendors on tobacco control laws in India. Prior to conduct of study, ethical approval was obtained from the Institutional Ethics and Review Board of The Oxford Dental College and Research Centre, Bengaluru.

A questionnaire was formulated related to knowledge of tobacco control laws in India and was validated by a panel of subject experts. The questionnaire was further translated in local language for the

convenience and better understanding of the questionnaire. Pre-testing of the questionnaire was done on small sample of 30 respondents to detect any problem with design like ambiguity of words, inability to understand the questions and many other problems associated with questionnaire. A multistage random sampling was done. The urban area in Bengaluru comprised of 8 zones under the Bruhat Bengaluru Mahanagara Palike (BBMP) from which 3 wards were randomly selected from each zone and from each ward 20 participants were selected. A total of 480 participants were selected. Informed consent was taken from participants. The tobacco vendors were categorized into exclusive tobacco outlets and general stores.

Assuming the prevalence of knowledge of the tobacco vendors as 50% the sample size was estimated to be 480 using Epi Info by CDC (Centres for Disease Control and Prevention) version 3.01.For comparison of variables, the responses were dichotomized as correct and incorrect responses and analysed using Chi Square test. For all the tests, *P* value of < 0.05 was considered for statistical significance.

### Results:

Among 480 participants of the study 462 (96.3%) were males and only 18(3.7%) were females. The mean age of the study population was 40.8±9.8 years. About 83.2% of the tobacco outlets existed for a period between 1 to 10 years. Literacy rate among the participants was high at 84.3% with 75.2% having education up to school level and 9% having education up to college level. (Table 1)

Awareness about Cigarettes and Other Tobacco Products Act (COTPA) in the present study was found to be 46.2% and the knowledge was found to be more among tobacco vendors who had education up to college level than the tobacco vendors who were illiterate or had education up to school level.(Table 2).

About 401(83.5%) and 267 (55.6%) were aware about the ban on sale of tobacco products to minors and ban on selling tobacco products near educational institutions respectively. (Table 2). Majority 70.4% of the participants were aware of ban on smoking in public places. Only 41 (8.5%) of the participants were aware about penalty for violating the Act and

the knowledge about the ban on sale of tobacco products to minors was found to be higher among tobacco vendors who had education up to college level than the tobacco vendors who were illiterate or had education up to school level. The awareness on ban of sale of loose cigarettes was found to be comparatively low which was about 40.2% and significantly higher knowledge regarding the ban was found in tobacco vendors with college level education than among the illiterate vendors and vendors with school level of education. Furthermore,

the knowledge on how has the COTPA changed the consumption of tobacco products before and after implementation of the Act was found to be more or less the same among all vendors irrespective of their education. About 60.8 % of the participants said that the tobacco consumption remained the same even after the implementation of COTPA. Significantly higher knowledge was found among tobacco vendors of exclusive tobacco outlets than the tobacco vendors of general stores for all questions except the awareness on ban of sale of loose cigarettes.

**Table 1: Description of tobacco outlets according to duration of existence of tobacco outlet and educational status of tobacco vendors**

	Category	Frequency n (%)
<b>Duration of existence of the tobacco outlets ( in years)</b>	1-10	399 (83.2)
	11-20	59 (12.4)
	21-30	13 (2.6)
	≥31	9 (1.8)
<b>Level of education</b>	Illiterate	75 (15.6)
	School	361 (75.2)
	College	44 (9.2)
<b>Total</b>		<b>480 (100)</b>

**Table -2: Knowledge of COTPA among tobacco vendors**

Questions	Response	Type of tobacco outlets			
		Exclusive Tobacco store N=355 n (%)	General store N =125 n (%)	Total N=480 n (%)	P value
<b>Is there a tobacco legislation law in the state?</b>	Yes	171(48.2)	51(40.8)	222(46.2)	
	No				

	No	73(20.6)	17(13.6)	90(18.8)	0.012*
	Don't know	111(31.3)	57(45.6)	168(35)	
Can you sell cigarettes or tobacco products around 100 yards of an educational institute?	Yes	68(19.1)	27(21.6)	95(19.8)	0.001*
	No	214(60.3)	53(42.4)	267(55.6)	
	Don't know	73(20.6)	45(36)	118(24.6)	
Can tobacco products be sold to children below 18 years of age?	Yes	24(6.8)	15(12)	41(8.5)	< 0.001**
	No	318(89.6)	91(72.8)	401(83.5)	
	Don't Know	13(3.7)	19(15.2)	38(7.9)	
Where is smoking banned in India?	Public places	272(76.6)	70(56)	338(70.4)	< 0.001**
	All places	46(12.9)	38(30.4)	88(18.3)	
	Don't know	37(10.4)	17(13.6)	54(11.2)	
What is the amount one has to pay if he/she violates the law?	Upto 200 INR	26(7.3)	12(9.6)	38(7.9)	0.003*
	500 INR	73(20.6)	29(23.2)	102(21.2)	
	1000 INR	106(29.8)	16(12.8)	122(25.4)	
	Don't know	150(42.2)	68(54.4)	218(45.4)	
Are you aware that loose cigarettes are not to be sold?	Yes	147(41.1)	46(36.8)	193(40.2)	0.56
	No	108(30.4)	38(30.4)	146(30.4)	
	Don't Know	100(28.2)	41(32.8)	141(29.4)	
How has COTPA changed the consumption of tobacco?	Decreased	53(14.9)	22(17.6)	75(15.6)	0.018*
	Increased	16(4.3)	6(4.8)	22(4.6)	
	Remains same	238(67.0)	66(52.8)	304(63.3)	
	Don't know	48(13.5%)	3(24.8)	79(16.4)	

\*p &lt; 0.05-Significant

\*\*p &lt; 0.001-Highly significant

## Discussion

Tobacco control laws are intended to protect and improve public health and encompass various measures to reduce tobacco consumption. Less awareness towards these laws may lead to non-implementation or poor-implementation of the act.<sup>9</sup>

In the present study awareness about COTPA /legislation related to tobacco products was found to

be 46.2% which is similar to the study done by Pimple S *et al*<sup>10</sup> where it was found to be 48.2%. The awareness was more among participants with education up to graduation or more as compared to illiterates and education up to school level. Furthermore, the greater awareness on COTPA among the vendors owning an exclusive tobacco store than a general store suggests that there is higher vigilance of exclusive tobacco outlets by

administrative authorities for prohibition of sale of tobacco products. However, the findings of the present study suggest that the awareness levels regarding COTPA have to be raised further for effective implementation of the legislation and dissuade people from using tobacco and other related products.<sup>2</sup>

About 267 (55.62%) tobacco vendors were aware of ban on selling tobacco products near educational institutions which is less than the study done by PimpleSetal<sup>10</sup> and Ravishankar etal<sup>9</sup> where the awareness was found to be 76.6% and 62% respectively. The sale of the tobacco is prohibited in an area within radius of 100 yards of any educational institution in order to restrict access of youth for tobacco products. Curiosity and peer pressure are the main reasons for experimenting with tobacco during adolescence. If a shop selling tobacco products will be close to any institution, the students of that institution will have immediate and easy access to tobacco products so there will be more chances of experimenting tobacco consumption.<sup>9</sup>

The present study reveals that the awareness on ban of sale of tobacco products to minors was found to be 83.5% which is similar to the study done by Pimple S et al<sup>4</sup> and Ravishankar etal<sup>9</sup> where it was found to be 82.9% and 89% in Mumbai and Moradabad city, respectively.

Assessment of awareness on ban on smoking in public places showed that 70.4% of the participants were aware which is similar to the findings from Ravishankar etal<sup>9</sup> where it was found to be 75.8%. Also, the vendors of exclusive tobacco store exhibited greater knowledge than the general store probably due to the fact that there is a stronger vigilance of police near public places who warns the people, especially nearby shops selling tobacco products exclusively and also because they have the first-hand information from seeing the public being punished for smoking in public places.

Awareness on violation of the act in the present study was found to be only 8.5% which is less than the study done by Ravishankar et al<sup>9</sup> where it was 85%. The study data reflects on the complete lack of regulation and enforcement of the provisions within the law<sup>4</sup> and lack of stringent action by the competent authorities.

Selling of single cigarettes, also known as loosies is of potentially great concern to the field of tobacco control.<sup>9</sup> Loosies allows those with fewer resources, especially who are under-age to buy cigarettes without having to purchase a whole pack. Awareness on ban of sale of loose cigarettes was found to be 40.2% which is similar to the study done by Ravishankar etal<sup>9</sup> where it was found to be 43%. The lack of information can be attributed to the fact that the law is implemented recently in India in the year 2015.

About 60.8 % said that that tobacco consumption remained the same even after the implementation of COTPA. This finding suggests that COTPA should be implemented with stronger and stricter enforcement in order to bring in the desired change.

Regular inspections along with robust and sustainable enforcement measures are required to check for the COTPA compliance. More stringent anti-tobacco laws and anti-tobacco activism will bring about effective implementation of the Act. Concentrated efforts to increase the awareness of the tobacco vendors through educational programs, prints, social media, etc. should be carried out.

To conclude, the present study indicates that the participants have insufficient knowledge on COTPA and hence an effort has to be made to increase the awareness amongst this influential group in order to involve them effectively in Tobacco Control Programmes. The information and communication about the major provisions with in COTPA through appropriate government channels coupled with strict enforcement will bring in the desired change. Furthermore, inspection and enforcement with

designated roles and responsibilities and dedicated manpower with appropriate penalty entrusted with single agency is needed for sustainable long-term impact.

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