# RESEARCH ARTICLE

# Does Awareness on Tobacco Control Legislations Pertaining to Tobacco Sellers Lead to Compliance? – A Study from Chennai, India

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## **Abstract**

**Background:** Tobacco Sellers (TS) are key stake holders in tobacco control and their compliance with the legislation is crucial to achieve the intended outcome. The current study was conducted to assess the awareness of the Cigarette and Other Tobacco Products Act (COTPA) among TS and their response. **Methodology:** TS (N=527) were randomly chosen from ten zones of Chennai city. A structured self-administered questionnaire was used to assess awareness and compliance regarding sections 4, 5 and 6. **Results:** Awareness of COTPA sections-4, 5, 6a, 6b among the TS was 42.0%, 31.0%, 69.3% and 57.2%, respectively, and 65.4% were of the opinion that the tobacco menace can be controlled through legislation. One fourth of the sellers reported that they were contemplating stopping selling tobacco and 13.4% had been requested by various people to stop doing so. The overall profit from tobacco sales was less than 10% for 58.1% of the sellers. There was no change in the sale trends of tobacco products and the smoking form of tobacco was reported to be highly sold (56.2%). Only 54.6% had displayed signboards mentioning the prohibition of smoking in public places as directed under section 4, and 90% of the sellers continued to supply accessories to smoker. In contravention of section-5, 85.6% continued to advertise tobacco in some form and total non-compliance with section-6a and 6b was observed. **Conclusion:** Awareness on tobacco control legislations among TS was found to be moderate. Furthermore, compliance with the COTPA was minimal.

Keywords: Cigarette and other tobacco products act- awareness- compliance- smoking- tobacco

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#### Introduction

India signed Frame work Convention on Tobacco Control (WHO-FCTC, 2005) in the year 2005 and enacted the Cigarettes and Other Tobacco Products Act (COTPA) to regulate and control tobacco in 2003 (MOHFW, 2003). COTPA bans, smoking in public places (Section-4), promotion of tobacco products (Section-5), sale to and by minors (Section 6-a), sale around the educational institutions (Section 6-b) and printing pictorial health warning in the packets (Section-7). However, the purpose of these legislations in terms of reducing the consumption rate and preventing new users has not yet been achieved due to inefficient implementation, lack of knowledge among related stakeholders and poor compliance (Choudhary et al., 2015; Reddy and Gupta, 2004). The prime action is to increase the awareness, knowledge and integrate the attitudes of diverse stake holders to address the current scenario. One such important stake holders are the TS who are the mediators between the manufacturers and the people. The current study aims to understand the awareness on COTPA section-4, 5, 6a and 6b by the TS and their compliance.

#### **Materials and Methods**

Chennai Metropolitan area was divided into ten administrative zones. In each zone, a list of roads in which educational institutions were located was prepared and one busy road was chosen at random from the list. The investigator identified all the small roads/streets/lanes which are connected to the main road and were within 100 yards of the largest educational institution. All the shops that sold tobacco products in these roads were approached for inclusion in the study. Institutional ethics committee approval was obtained before the commencement of the study. Only the owners were interviewed after taking oral consent. All the TS approached agreed to participate. A total of 527 TS were included from all the ten zones. A structured questionnaire designed by the investigators in the regional language (Tamil) was used to assess the knowledge and their compliance to COTPA. Face validity using Delphi Technique was established for the questionnaire. The questionnaire had 33 items, assessing the awareness on COTPA-section 4, 5, 6a and 6b, health hazards due to tobacco use and passive smoking, their perception on tobacco sale trend, category of people

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purchasing tobacco, type of tobacco sold, possibility of smoke free Chennai, best measure to eliminate tobacco, their reaction towards section-4 violations and tobacco use by the sellers. In addition, their attitude towards stoppage of tobacco sale and the reasons for the same, profit made from tobacco and equally profitable alternate products that can be sold by sellers were assessed. The response pattern was either multiple choices or binary. The overall cooperation while answering the questions by the shopkeeper was rated by the investigator and their compliance towards Section-4, 5, 6a and 6b was evaluated. Frequency and percentage were calculated for the data using SPSS version 17.

#### **Results**

The awareness and perception about COTPA section 4, 5, 6a and 6b and health hazards by TS were presented in Table-1.

#### Awareness and perception about COTPA

TS were asked if there were any provisions under COTPA act to protect children. Although 47.4% reported that they were aware, while asked to specify the provisions, only a few were able to specify (Section 4-1.1%, Section 5-0.2%, Section 6a-18.6%, Section 6b-2.8%).

Subsequently, the TS were provided with the list of sections under COTPA that they are required to comply and were asked if they were aware of those sections. Majority of them reported that they were aware of those sections. Despite the moderate awareness (42%) on Section-4, majority (75.2%) reported that they were aware that they need to place a signage board as per Section-4. However, the awareness on the prohibition of supply of accessories such as lighters, match box, etc was minimal (31%). Awareness on Section-5 (38.6%) was less among TS compared to other provisions. Awareness on Section 6a and 6b was 69.3% and 57.2% respectively. One in five sellers was aware of the punishment for the violation of section-6b.

The TS were asked about their feeling on seeing someone smoking, 30.2% reported that they will be irritated and highly disturbed (19.7%). However, 46.9% reported that they will remain undisturbed and 3.2% reported that they liked it.

When the attitude towards controlling tobacco menace through legislations was questioned, 51.2% reported that it can be controlled to some extent, 14.2% reported as to a greater extent and 26.8% opined that it cannot be controlled. Only 26.2% reported that 'Smoke Free Chennai City' is possible. The best tobacco control measure to eliminate tobacco reported was awareness (13.3%), enforcement of stringent laws (16.3%), providing alternative livelihoods to tobacco workers (8.3%) and complete ban (34.5%). Comprehensive implementation of all the measures was reported by 40% of the sellers. Only 22.6% reported that the tobacco control legislations are implemented. Majority of the shopkeepers (83.3%) mentioned that their shop was not within 100 metres of the educational institution and only 16.7% admitted that their shop is within 100 meters.

Table 1. Frequency and Percentage Distribution of Awareness and Perception about COTPA Section 4, 5, 6a and 6b and Health Hazards by Tobacco Sellers

Laws protecting minors from tobacco exposure	Category	Items	n (%)
From tobacco exposure			
minors (Section-6a)   Prohibition of sale of within 100 meters of Educational Institutions (Section-6b)   Placement of warning boards as per Section-4   Prohibition of open and attractive display of products (Section-5)   Prohibition of pupplying of accessories like match box, lighting machine, etc.   Prohibition of advertisements   Prohibition of advertisements   Prohibition of advertisements   Prohibition of advertisements   Prohibition of prominent display and illuminated boards advertising tobacco   Will get irritated   159 (30.2%)   Highly disturbed   104 (19.7%)   Undisturbed   247 (46.9%)   Undisturbed   247 (46.9%)   Earth of the prohibition of prominent display and illuminated boards advertising tobacco   Can control   17 (3.2%)   Earth of the prohibition of prominent display and illuminated boards advertising tobacco   Will get irritated   159 (30.2%)   Highly disturbed   104 (19.7%)   Earth of the prohibition of advertisements   180 (36.5%)   Earth of the prohibition of advertisements   Prohibition of prominent display and illuminated boards advertising tobacco   Earth of the prohibition of advertisements   189 (36.5%)   Earth of the prohibition of advertisements   189 (36.5%)   Earth of the prohibition of advertisements   189 (30.2%)   Earth of			, <i>,</i>
100 meters of Educational Institutions (Section-6b)   Placement of warning boards as per Section-4   Prohibition of open and attractive display of products (Section-5)   Prohibition of supplying of accessories like match box, lighting machine, etc   Prohibition of supplying of accessories like match box lighting machine, etc   Prohibition of smoking in public places (Section-4)   Prohibition of prominent display and illuminated boards advertising tobacco   Will get irritated   159 (30.8%)   Will get irritated   159 (30.2%)   Highly disturbed   104 (19.7%)   Undisturbed   247 (46.9%)   Undisturbed   247 (46.9%	COTPA Act 2003		362 (69.3%)
As per Section-4   Prohibition of open and attractive display of products (Section-5)   Prohibition of supplying of accessorise like match box, lighting machine, etc		100 meters of Educational	298 (57.2%)
Autractive display of products (Section-5)   Prohibition of supplying of accessories like match box, lighting machine, etc		_	393 (75.2%)
Accessories like match box, lighting machine, etc   Prohibition of smoking in public places (Section-4)		attractive display of products	200 (38.6%)
Prohibition of advertisements   189 (36.5%)		accessories like match box,	160 (31%)
How would you feel when you see someone smoking?		_	218 (42%)
How would you feel when you see someone smoking?		Prohibition of advertisements	189 (36.5%)
when you see someone smoking?         Highly disturbed         104 (19.7%)           Do you think legislations can control tobacco menace?         Can control         17 (3.2%)           Can be controlled to a greater extent         75 (14.2%)           To some extent         270 (51.2%)           Cannot be controlled         141 (26.8%)           No idea         24 (4.6%)           Is Smoke free Chennai city possible?         Yes         138 (26.2%)           What is the best tobacco control measure to eliminate tobacco?         Awareness         70 (13.3%)           Complete ban         182 (34.5%)         Stringent laws         86 (16.3%)           Providing alternate livelihood to tobacco workers         44 (8.3%)         44 (8.3%)           All the above         211 (40%)         222 (42.1%)           Do you think tobacco control legislations are strictly implemented?         No         222 (42.1%)           No         222 (42.1%)         No         222 (42.1%)           No         439 (83.3%)         Yes         88 (16.7%)           No         439 (83.3%)         Yes         88 (16.7%)           No         439 (83.3%)         Yes         297 (56.4%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		display and illuminated boards	159 (30.8%)
smoking?         Highly disturbed         104 (19.7%)           Do you think legislations can control tobacco menace?         Can control         17 (3.2%)           Can be controlled to a greater extent         75 (14.2%)           To some extent         270 (51.2%)           Cannot be controlled         141 (26.8%)           No idea         24 (4.6%)           Is Smoke free Chennai city possible?         Yes         138 (26.2%)           What is the best tobacco control measure to eliminate tobacco?         Awareness         70 (13.3%)           Complete ban         182 (34.5%)         86 (16.3%)           Providing alternate livelihood to tobacco workers         44 (8.3%)           All the above         211 (40%)           Do you think tobacco control legislations are strictly implemented?         No         222 (42.1%)           Is your shop is within 100 metres of educational institution?         Yes         88 (16.7%)           Have you displayed the signage board as per the tobacco control law?         Yes         297 (56.4%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		Will get irritated	159 (30.2%)
Do you think legislations can control tobacco menace?		Highly disturbed	104 (19.7%)
can control tobacco menace?         Can be controlled to a greater extent         75 (14.2%)           To some extent         270 (51.2%)           Cannot be controlled         141 (26.8%)           No idea         24 (4.6%)           Is Smoke free Chennai city possible?         Yes           What is the best tobacco control measure to eliminate tobacco?         Awareness         70 (13.3%)           Complete ban         182 (34.5%)           Stringent laws         86 (16.3%)           Providing alternate livelihood to tobacco workers         44 (8.3%)           All the above         211 (40%)           Poo you think tobacco control legislations are strictly implemented?         Yes         119 (22.6%)           No         222 (42.1%)           Don't know         186 (35.3%)           Is your shop is within 100 metres of educational institution?         Yes         88 (16.7%)           No         222 (42.1%)           No         439 (83.3%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		Undisturbed	247 (46.9%)
Can be controlled to a greater extent   To some extent   To some extent   270 (51.2%)	2	Can control	17 (3.2%)
Cannot be controlled   141 (26.8%)   No idea   24 (4.6%)     Is Smoke free Chennai city possible?   Yes   138 (26.2%)     What is the best tobacco control measure to eliminate tobacco?   Complete ban   182 (34.5%)     Stringent laws   86 (16.3%)     Providing alternate livelihood to tobacco workers   All the above   211 (40%)     Do you think tobacco control legislations are strictly implemented?   No   222 (42.1%)     Is your shop is within 100 metres of educational institution?   Yes   88 (16.7%)     Have you displayed the tobacco control law?   What will you do if a minor (<18 years) come to your shop to procure tobacco?   Will sell, but advice him to quit the habit     Will sell, but advice him to quit the habit   Will sak for age proof   33 (6.3%)     Deny   271 (51.4%)     Have put up signage board   137 (26%)     Health Hazards   Cancer   263 (49.9%)     Lung disease   69 (13.1%)     Heart disease   54 (10.2%)     Infertility   13 (2.5%)			75 (14.2%)
No idea   24 (4.6%)		To some extent	270 (51.2%)
S Smoke free Chennai city possible?   Yes   138 (26.2%)		Cannot be controlled	141 (26.8%)
What is the best tobacco control measure to eliminate tobacco?		No idea	24 (4.6%)
control measure to eliminate tobacco?         Complete ban         182 (34.5%)           Stringent laws         86 (16.3%)           Providing alternate livelihood to tobacco workers         44 (8.3%)           All the above         211 (40%)           Do you think tobacco control legislations are strictly implemented?         No         222 (42.1%)           Don't know         186 (35.3%)           Is your shop is within 100 metres of educational institution?         Yes         88 (16.7%)           Have you displayed the signage board as per the tobacco control law?         Yes         297 (56.4%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		Yes	138 (26.2%)
Complete ban   182 (34.5%)	What is the best tobacco	Awareness	70 (13.3%)
Stringent laws   86 (16.3%)   Providing alternate livelihood to tobacco workers   All the above   211 (40%)		Complete ban	182 (34.5%)
to tobacco workers  All the above 211 (40%)  Do you think tobacco control legislations are strictly implemented?  No 222 (42.1%)  Don't know 186 (35.3%)  Is your shop is within 100 metres of educational institution?  Have you displayed the signage board as per the tobacco control law?  What will you do if a minor (<18 years) come to your shop to procure tobacco?  Will sell 55 (10.4%)  Will sell, but advice him to quit the habit  Will sell, but advice him to quit the habit  Will ask for age proof 33 (6.3%)  Deny 271 (51.4%)  Have put up signage board 137 (26%)  Health Hazards  Cancer 263 (49.9%)  Heart disease 69 (13.1%)  Heart disease 54 (10.2%)  Infertility 13 (2.5%)	cililitate tobacco:	Stringent laws	86 (16.3%)
Do you think tobacco control legislations are strictly implemented?			44 (8.3%)
control legislations are strictly implemented?         No         222 (42.1%)           Don't know         186 (35.3%)           Is your shop is within 100 metres of educational institution?         Yes         88 (16.7%)           Have you displayed the signage board as per the tobacco control law?         Yes         297 (56.4%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		All the above	211 (40%)
Strictly implemented?   No   222 (42.1%)		Yes	119 (22.6%)
Syour shop is within 100 metres of educational institution?   No   439 (83.3%)	_	No	222 (42.1%)
100 metres of educational institution?         No         439 (83.3%)           Have you displayed the signage board as per the tobacco control law?         Yes         297 (56.4%)           What will you do if a minor (<18 years) come to your shop to procure tobacco?		Don't know	186 (35.3%)
institution?  Have you displayed the signage board as per the tobacco control law?  What will you do if a minor (<18 years) come to your shop to procure tobacco?  Will sell, but advice him to quit the habit  Will sell, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self, but advice him to quit the habit  Will self value in the put up signage board  137 (26%)  Health Hazards  Cancer  Lung disease  69 (13.1%)  Heart disease  54 (10.2%)  Infertility  13 (2.5%)		Yes	88 (16.7%)
signage board as per the tobacco control law?         What will you do if a minor (<18 years) come to your shop to procure tobacco?		No	439 (83.3%)
minor (<18 years) come to your shop to procure tobacco?	signage board as per the	Yes	297 (56.4%)
to your shop to procure tobacco?  Will sell, but advice him to quit the habit  Will inform parents/teachers 43 (8.2%)  Will ask for age proof 33 (6.3%)  Deny 271 (51.4%)  Have put up signage board 137 (26%)  Health Hazards Cancer 263 (49.9%)  Lung disease 69 (13.1%)  Heart disease 54 (10.2%)  Infertility 13 (2.5%)	What will you do if a	Will sell	55 (10.4%)
Will inform parents/teachers 43 (8.2%) Will ask for age proof 33 (6.3%) Deny 271 (51.4%) Have put up signage board 137 (26%) Cancer 263 (49.9%) Lung disease 69 (13.1%) Heart disease 54 (10.2%) Infertility 13 (2.5%)	to your shop to procure		85 (16.1%)
Deny 271 (51.4%) Have put up signage board 137 (26%) Health Hazards Cancer 263 (49.9%) Lung disease 69 (13.1%) Heart disease 54 (10.2%) Infertility 13 (2.5%)	waco:	Will inform parents/teachers	43 (8.2%)
Health Hazards  Cancer  Lung disease Heart disease Heart disease For the disease Heart disease For the disease		Will ask for age proof	33 (6.3%)
Health Hazards         Cancer         263 (49.9%)           Lung disease         69 (13.1%)           Heart disease         54 (10.2%)           Infertility         13 (2.5%)		Deny	271 (51.4%)
Lung disease       69 (13.1%)         Heart disease       54 (10.2%)         Infertility       13 (2.5%)	Health Hazards	Have put up signage board	137 (26%)
Heart disease 54 (10.2%) Infertility 13 (2.5%)		Cancer	263 (49.9%)
Infertility 13 (2.5%)		Lung disease	69 (13.1%)
·		Heart disease	54 (10.2%)
All of the above 155 (29.4%)		Infertility	13 (2.5%)
		All of the above	155 (29.4%)

Table 1. Continued

Category	Items	n (%)
Mortality due to tobacco related diseases	Aware	60 (11.4%)
Number of chemical constituents in tobacco	3000-4000	136 (25.8%)
constituents in tobacco	100-1000	188 (35.7%)
	No toxic chemicals in tobacco	74 (14%)
	Don't know	129 (24.5%)
Which form of tobacco	Smoking	74 (14%)
is less harmful?	Chewing	139 (26.3%)
	Snuff	77 (14.6%)
	All forms are equally harmful	203 (38.6%)
	None are harmful	58 (11%)
Date of World No Tobacco Day	Aware	94 (17.8%)
How dangerous is the	Highly dangerous	232 (44%)
passive smoking?	Slightly dangerous	215 (40.8%)
	Not dangerous	51 (9.7%)
	Don't know	29 (5.5%)
Passive smoking could	Yes	316 (60%)
cause cancer and heart diseases	No	181 (34.3%)
	Don't know	30 (5.7%)
Health risks to shop keepers by allowing smoking in front of the shop	Aware	325 (61.7%)
Punishment for selling tobacco products around the educational institutions	Aware	107 (20.3%)
What will you do when your customer smoke	Will stay quiet, as I have put up warning board	57 (10.8%)
in front of your shop?	Say politely to move away	173 (32.8%)
	Warn strictly	131 (24.9%)
	Ignore	103 (19.5%)
	Will stay quiet concerning about losing customer	98 (18.6%)
What will you do if	Will move away	236 (44.8%)
you are exposed to passive smoking in	Will call police/toll free number	60 (11.4%)
public places?	Say politely to the user to move away	77 (14.6%)
	Ignore	161 (30.6%)
Did anyone tell you to	Enforcement officials	54 (10.3%)
stop selling tobacco?	Educational Institutions	3 (0.6%)
	NGO/spiritual leaders	7 (1.4%)
	Friends/relatives	7 (1.4%)
	Nobody told	456 (86.3%)
Have you ever thought of stop selling tobacco products?	Yes	128 (24.3%)
Do women/children hesitate to visit the shop as you sell tobacco?	Yes	103 (19.5%)
Did the association you are affiliated to request you to stop selling tobacco?	Yes	74 (14%)
What is the percentage	<10%	126 (23.9%)
of your profit earned through tobacco sale?	20 - 30%	85 (16.1%)
ough tooucco saic:	40 - 70%	10 (1.9%)
	>80%	306 (58.1%)

Table 1. Continued

Category	Items	n (%)
What is the percentage of your profit earned through tobacco sale?	<10%	306 (58.1%)
	20 - 30%	126 (23.9%)
	40 - 70%	85 (16.1%)
	>80%	10 (1.9%)
What is the percentage of your profit	<10%	306 (58.1%)
earned through tobacco sale?	20 - 30%	126 (23.9%)
	40 - 70%	85 (16.1%)
	>80%	10 (1.9%)
Do you currently use tobacco?	Smoking	72 (13.7%)
	Chewing	37 (7.0%)
	Smoking & Chewing	9 (1.7%)
	Snuff	3 (0.6%)
	Non users	406 (77%)
Have you ever used tobacco?	Yes	159 (30.2%)

COTPA, The Cigarettes and Other Tobacco Products Act; NGO, Non Government Organization

When enquired regarding the display of signage boards as per the tobacco control law, 56.4% claimed that they were abiding by the law. On asking about their practice, when a minor came to their shop to procure a tobacco product, 51.4% reported that they denied tobacco products to minors. However, 26.5% sold tobacco to minors, of which 16.1% advised them to quit the habit. Also 8.2% reported that they would inform parents or teachers and 6.3% said that they would ask for their age proof.

The association between tobacco and non communicable diseases such as cancer, lung diseases and heart diseases, and infertility was aware among 29.4% of the TS. Majority (49.9%) were able to relate tobacco as the cause of cancer when compared to the knowledge of other diseases (Lung disease-13.1%, Heart disease-10.2%, Infertility-2.5%). The tobacco related mortality in India was reported correctly by 11.4% of the sellers.

Table 2. Tobacco Sale Trend, Category of Customers Purchasing Tobacco and the Type of Tobacco Sold as Reported by the Sellers

Item	Category	n (%)
Change in sale trend	Increased	66 (12.5%)
	Decreased	201 (38.1%)
	No change	252 (47.8%)
	Don't know	8 (1.5%)
Category of customers procuring tobacco products	Male	312 (59.2%)
	Female	36 (6.8%)
	Old age	71 (13.5%)
	Middle age	201 (38.1%)
	Youngsters	240 (45.5%)
	Children	23 (4.4%)
	Educated	38 (7.2%)
	Illiterates	34 (6.5%)
Form of tobacco highly sold	Smoking	296 (56.2%)
	Chewing	233 (44.2%)
	Snuff	43 (8.2%)

Table 3. Frequency and Percentage Distribution of Shopkeepers Regarding Their Knowledge on Section-4, 5, and 6 of COTPA and Their Compliance Observed by the Field Investigators

COTPA sections	Items	Knowledge	Compliance observed by Field Investigators
4	Display of signage board mentioning the prohibition of smoking in public places	393 (75.2%)	288 (54.6%)
	Prohibition of supply of accessories like match box, lighting, machine, etc.	160 (31%)	54 (10.2%)
5	Prohibition of advertisement of Cigarette and other Tobacco Products	189 (36.5%)	76 (14.4%)
	Prohibition of display of prominent and illuminated boards advertising tobacco	159 (30.8%)	89 (16.9%)
	Prohibition of open illuminated and attractive display of tobacco products in shops	200 (38.6%)	54 (10.2%)
6b	Prohibition of sale of cigarettes and other tobacco products within 100 meters of Educational Institutions	298 (57.2%)	0 (0%)

One fourth of the sellers were not aware of the chemical constituents of tobacco and 14% reported that tobacco does not contain any toxic chemicals. All forms of tobacco was reported as harmful by 38.6% of the sellers and chewing tobacco was reported as less harmful (26.3%) compared to other forms (Smoking-14%, Snuff-14.6%). World no tobacco day date was correctly reported by 17.8%.

Majority of the sellers reported that passive smoking as either highly or slightly dangerous and only 9.7% reported as not dangerous. Moreover, 60% reported passive smoking had the potential to cause cancer and heart diseases. Majority of the TS (61.7%) reported that they could get affected by passive smoking if they allow their customers to smoke in front of their shops.

When enquired about their reaction to passive smoking in public places, 44.8% of the sellers claimed that they would move away from the place and 30.6% reported that they would ignore. When asked about their practice on seeing customers smoking in front of the shop, the sellers stated that they would say politely to move away (32.8%), warn the customers strictly (24.9%), ignore (19.5%), would stay quiet concerning about losing their customer (18.6%) and as they have put up warning boards (10.8%)

Of the total TS included in the study, 44.8% were affiliated to trade union associations. A few of the shopkeepers (14%) were requested by the associations they are affiliated to stop selling tobacco while a few others were requested by enforcement officials (10.3%), educational institutions (0.6%), NGOs and spiritual leaders (1.4%), and friends and relatives (1.4%). One fourth of the sellers reported that they were contemplating

to stop selling tobacco attributing the reasons to law, lending problems, health issues, religion, insistence by public and 19.5% reported that women and children are hesitating to visit their shop as they sell tobacco.

The rest were not thinking of stop selling and they attributed their decision to various reasons like profit, to keep up the overall business despite the profit from tobacco sale being low. The overall profit from tobacco sale was less than 10% for 58.1% of the sellers and only 1.9% reported their profit to be more than 80%. The alternative products reported by the seller to compensate the profit included mobile top up cards, cool drinks, snacks, fruits, news papers and tea. Among the respondents 23% of them were current tobacco users and 30.2% had used tobacco at least once during their lifetime.

Tobacco sale trend, category of customers purchasing tobacco and the type of tobacco sold as reported by the sellers was presented in Table 2.

#### Tobacco sale trend

About half of the sellers (47.8%) said that there was no change in the sale trend of tobacco products; however 12.5% and 38.1% reported an increase and decrease respectively. The predominant tobacco customers were found to be males (59.2%) with a meager 6.8% of females. Youngsters (45.5%), middle age (38.1%) customers were the frequent buyers followed by old people (13.5%) and children (4.4%). Smoking form of tobacco was reported to be highly sold (56.2%), followed by chewing form of tobacco (44.2%) and snuff (8.2%).

## Compliance to Sections 4, 5, and 6 of COTPA

In addition to the administration of the questionnaire, the field investigators observed the compliance to sections 4, 5, and 6b by the TS. TS' knowledge on Sections 4, 5, and 6 of COTPA and their compliance was reported in Table 3.

Under section 4, the knowledge on display of signage board mentioning the prohibition of smoking in public places was 75.2% however 54.6% have put up boards. The knowledge on the prohibition of supplying of accessories like match box, lighting machine, burning thread, etc. was 31%, however, about 90% continued to supply the accessories. Under Section-5, the knowledge on the prohibition of advertisement of tobacco products was 36.5%, display of prominent and illuminated boards advertising tobacco was 30.8% and illuminated and attractive display of tobacco products in shops was 38.6%. However, 85.6% continue to advertise tobacco, 83.1% had illuminated and attractive board and 89.8% had open attractive display of the products.

Knowledge on sale to minors (Section-6a) was 69.3% and prohibition of sale of cigarettes and other tobacco products within 100 meters of Educational Institutions (Section-6b) was among 57.2% of the sellers; however none of the shops had display boards on prohibition of tobacco sale to minors and all the shops chosen under this study were in and around educational institutions.

## **Discussion**

Among various stakeholders, TS play a major role, as the tobacco retail outlets serve as a link between tobacco industry and the buyers. Adequate awareness on the ill effects of tobacco usage, tobacco control legislations and thereby complying to tobacco control laws by the sellers will lead to effective tobacco control. Despite the presence of comprehensive legislations, the effective implementation and enforcement of the same continues to be the biggest challenge (Kaur and Jain, 2011).

Our study results demonstrated that the compliance by the TS on tobacco control legislations were poor despite having moderate awareness. Awareness on section-4 was high when compared to other sections. Although, TS were aware of section-4, 5 and 6, the comprehensive understanding of ancillary provisions related those sections such as ban on supply of accessories to smoke, placing signage boards for section-4 and 6a, ban on attractive open display of products were lacking. The enforcement officials were also focusing on one particular aspect of the section ignoring the other aspects. Moreover, enforcement officials were also not trained to implement all sections collectively. Though, the step by step guidelines are available, they are either in English and mostly available in the electronic form. The field level officials neither have access to those guidelines nor get guidance from the higher officials. Periodical training of the enforcement officials is crucial for comprehensive implementation.

Attractive and open display of tobacco products found to be triggering the initiation of the habit among children, adolescents and increasing the tendency towards impulse purchasing of tobacco products (Wakefield et al., 2006; Paynter, 2009; Henriksen, 2010). Despite having the knowledge on the various provisions under section-5 of COTPA being around 40%, their compliance was less than 15%.

Despite about 50% of the TS claimed that they denied tobacco products to minors, around 27% of TS continued to sell. Such non-compliance shown by even a meager percentage of TS tends to have a detrimental effect in promoting tobacco habit in the young vulnerable age.

In the present study, despite half of the sellers having knowledge about section 6b, all the shops included in the study were within 100 yards of educational institutions, thus revealing total noncompliance to the act.

It has been stated in the law that the distance of 100 yards shall be measured radially starting from the outer limit of the boundary wall, fence or as the case may be of the educational institution, it is a major challenge for the enforcement officials to verify, particularly in urban settings. Developing a Geographical Information System (GIS) is recommended to address this challenge (Kaur and Jain, 2011).

Various studies conducted in India reported poor to moderate compliance on various sections (Gong et al., 2011; Kaur and Jain, 2011; Panda et al., 2012; Shetty et al., 2012; Pimple et al., 2014; Goel et al., 2014; Grace et al., 2014; Chowdary et al., 2015). However, in contrary one study from Alwar district, Rajasthan showed higher

compliance rate (Jain et al., 2016) warranting further exploration.

While the TS were optimistic about controlling tobacco through legislation, they were skeptic about the enforcement and 'Smoke free Chennai' was considered as a reality by 26.2%. Moreover synergistic actions including awareness, enforcement of stringent laws, providing alternative livelihoods to tobacco workers was suggested for effective tobacco control. In a study conducted in Mangalore, the TS opined that the implementation of section-4 of tobacco control act would motivate the people to quit tobacco (Panda et al., 2012)

Majority of the TS (79.3%) in our study were able to relate tobacco as an etiological factor for cancer and similar observation was made among TS in Mangalore (Shetty et al., 2012). However, the knowledge on the association of other diseases such as infertility, lung and heart diseases with tobacco was observed to be minimal despite having higher association (Mathers et al., 2008). The reason for a relatively higher understanding of cancer linking with tobacco, could be attributed to the lead role taken by cancer control organizations in the country and lack of initiatives by other health care professionals. In countries like Australia, Thailand, United Kingdom, the pictorial health warning portrays varied diseases including those affecting the lung and heart (David et al., 2010; Hammond, 2010; Mead et al., 2016). Whereas in India, as per section 7 of COTPA, both the text and pictorial warning messages and electronic media campaigns designed by Ministry of health were linking cancer and tobacco (Kaur and Jain, 2011). As per the act, the pictorial warnings needs to be rotated biennially, and changing the focus linking other diseases may increase the awareness.

Despite the tobacco control initiatives taken by the Government in imparting awareness, knowledge on toxic chemical constituents of various tobacco products was less. Under Food Safety and Standard Act, 2006 (MOHFW, 2011), it is mandatory to display the constituents and the nutritional value of any product consumed. Tobacco products, though consumed or inhaled by people, COTPA is the only act supposed to regulate the ingredients of the tobacco products. It mandates the display of nicotine and tar, however even after 11 years of its existence; it is not implemented in India. The new amendment brought out by the Ministry in the year 2015, substituted the words 'constituents and emissions' for 'nicotine and tar' which is yet to be amended (MOHFW, 1992). Implementing section 7(5) of COTPA may bring awareness on the constituents among the public.

The knowledge on the exact punishment for the violation of tobacco control laws under section 6b was minimal. This is in accordance to two other studies and their poor knowledge was attributed to their belief that nobody was punished for their non-compliance (Shetty et al., 2012; Chowdary et al., 2015). Moreover, it has been claimed that the profit gained from tobacco sale outclasses meager penalty (Gong et al., 2010). It was reported by TS of our study that the penalty borne by them were subsequently reimbursed by the manufacturers.

About half of the sellers reported no change in the sale trend of tobacco products. The principal tobacco

customers were found to be males and adolescents. Despite sustained anti tobacco campaigns by the Government, easy accessibility and impulse purchasing and lack of compliance of TS to the legislations, promote initiation of tobacco habit among the adolescents.

Majority of the shopkeepers were aware of the dangers caused by second hand smoke and half of them reported that they feel irritated and disturbed on seeing someone smoking in front of their shop. None of the sellers were exclusively selling tobacco products, and the profit gained from tobacco sale was also not significant.

Some shopkeepers were requested by their affiliated associations, friends, relatives and NGOs to stop selling tobacco products. A meager one fourth of the sellers were contemplating to stop selling tobacco, however despite a lesser profit margin, they were reluctant in stoppage of selling tobacco products, as it adds up to the overall business. Although, the shopkeepers were aware of the importance of tobacco control, majority tend to ignore their role as an important stakeholder and put the onus on the Government. As majority of the TS were associated with one or other associations, sending guidelines in vernacular languages through their associations may help in increasing the compliance.

In conclusion, the current study suggests that the awareness among TS regarding COTPA sections relevant to them was average, however the compliance was minimal. The attitude towards tobacco is changing and it was not the profitable business for majority of the TS and complete tobacco ban was suggested.

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