Assessment of implementation and compliance of (COTPA) Cigarette and Other Tobacco Products Act (2003) in open places of Delhi

Irfan Ali[1], Basavaraj Patthi[1], Ashish Singla[1], Kuldeep Dhama[1], Mohnish Muchhal[1], Ananthalekshmy Rajeev[1], Monika Kumari[1], Ambar Khan[1]

[1]Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Ghaziabad, Uttar Pradesh, India

Abstract

Background: The use of tobacco in modern life leads to major epidemic disease resulting in social, financial, and environmental problems. In 1975, the first anti-tobacco legislation was passed which was incompetent; however, in 2003 "Cigarettes and Other Tobacco Products Bill" was passed which represents effectiveness in tobacco control. Thus, the aim was to assess the implementation of various sections of COTPA like Sections 4, 5, 6-a, and 6-b, and 7, 8, and 9 in public places of Delhi. **Materials and Methods:** The study was conducted in open places of Delhi in which 376 public places were visited for observing the compliance of Section 4 of COTPA, 350 places for observing the compliance of Section 5 of COTPA, and 70 educational institutions for observing the compliance of Section 6(a) and 6(b) of COTPA, and data were recorded through direct observation. **Results:** From a total of 376 places visited, smoking was seen in 59.28% of the places visited in Delhi which is against Section 4 of COTPA. For the compliance of Section 5, 97.42% were as per the COTPA specification; however, the compliance of Section 6-a was 68.57% and Section 6-b was 52.85%. In Delhi, 100% compliance of Sections 7, 8, and 9 has been observed. **Conclusion:** The finding of our study suggests that after years of implementation of the COTPA Act 2003, it is executed only to a certain degree in Delhi. For effective implementation of act, various health policy makers, institutions, media, NGOs, and so on can help in minimizing the usage.

Keywords: Compliance, India, smoking, tobacco, World Health Organization

Introduction

Tobacco use has emerged as the main causative factor for oral cancer and it is immensely prevailing in India. In 2015, more than 1.1 billion people were tobacco smokers all over the world, of which about 182 million (16.6%) live in India.[1] Despite a decline in smoking, its frequency is increasing day by day (WHO, 2016). The World Health Organization (WHO) has been an organization that has worked internationally with different authorities to make guidelines, actions, and policies that averts and curtails tobacco use. To sustain a potent monitoring system, WHO Framework Convention on Tobacco Control (WHO FCTC) was introduced in 2005;on 12 February 2012, the treaty was ratified by 177 countries around the world; on 5 February 2004, India became the eighth country to ratify.[2] To tackle tobacco use and control around the world, WHO introduced MPOWER measures with the aim to prevent spread of tobacco epidemics as well as to design and make policies to fight against this epidemic. There has been a relative increase in the overall MPOWER score of India spanning over the time period of 2008–2015 from 26 to 28 score. Based on MPOWER measure, India has shown positive result with overall improvement in tobacco control from 2008 to 2015.[3]

Address for correspondence: Dr. Irfan Ali, Department of Public Health Dentistry, D.J. College of Dental Sciences and Research, Ghaziabad, Uttar Pradesh, India. E-mail: ali31ids@gmail.com

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Tobacco is the main cause of premature death, oral cancer (Ahmed, 2013; Alshammari, 2015), lung cancer (Hecht, 2012), a majority of the cardiovascular diseases (Marano, 2015), and various oral diseases such as smoker's melanosis, smoker's palate, and oral candidiasis (Reibel, 2003).[4] Tobacco consumption is continuously increasing in India at 2%–3% per annum and it can lead to about 13% of all death by 2020. The use of tobacco products among adult is 35%, where among male it is 48% and among female its 20%. In urban places, about one in four (25%) adults and in rural places nearly two in five (38%) adult use different forms of tobacco product.[5]

The efficient method to avert morbidity and mortality due to oral cancer is to lower the appearance of new cases which can be done by raising awareness among population regarding the ill effects of tobacco consumption and guiding them in conquering tobacco addiction. Of all the different tobacco products, bidi is the most common product in India which accounts for about one-third of the tobacco product used. In urban places, cigarette smoking is most common form after bidi. In India, various other forms like chuttas, chillum, Hookah, dhumti, cigars, cheroots, and pipes are also prevalent.[6]

In India, Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) bill was introduced in Parliament on April 2003 which became act on 18 May 2003 to substitute the Cigarettes Act of 1975.[7] Cigarette smoking in public place was first banned by Delhi government in 1996.

New Delhi, India, is the epicenter of the country in every aspect of government policy-making machinery. Since decade, it has not been possible to administer a prospective tobacco control initiative in the state, and hence it is inappropriate to expect such an event in other states of the country.[8] Therefore, the aim of this study was to observe various Cigarettes and Other Tobacco Products Act (COTPA) 2003 in Delhi like Section 4, Section 5, Section 6, and Sections 7, 8, and 9.

Materials and Methods

This study was undertaken in the capital city of India from March 2019 to May 2019. The total area of Delhi is 1483 km^2. It is situated at an altitude of 293 m above sea level. The total population stands at 16,753,235, out f which 8,976,410 are males and 7,776,825 are females, as per the Census 2011.

Study design and participants

It is a cross-sectional observation study in which stratified random sampling was used to select the public places which included accommodation facilities/restaurants, educational establishments, offices and workplaces, healthcare facility, and public transport facility/metro station [Table 1].

Data collection

Delhi was divided into five zones for conducting the study, and from each zone four places were randomly selected. A total of 376 places were visited by the principle investigator. The "public place" was defined according to COTPA 2003 "As places which have public access, whether as of right or not and includes auditorium, hospital buildings railway waiting rooms, amusement centers, restaurants, court buildings, public offices, cinema halls, workplaces." Therefore, the most frequently visited public places such as accommodation facilities/restaurants, educational establishments, offices and workplaces, healthcare facility, and public transport facility/metro station were studied.

Questionnaire design

This study is an observational study, and various sections of COTPA were observed in public places of Delhi as follows:

a. Prohibition of smoking in public place
b. Prohibition of advertisement of cigarette and other tobacco products act
c. Prohibition of sale of tobacco products to under 18 years of age and near educational institutions.
d. Health warnings on all tobacco product packages

Inclusion criteria

Inclusion criteria were as follows: public places such as accommodation facilities/restaurants, educational establishments, offices and workplaces, healthcare facility, and public transport facility/metro station as defined by compliance of Cigarette and Other Tobacco Products Act (2003) COTPA.

Exclusion criteria

Exclusion included places which did not follow the criteria of the COTPA Act (2003).

Sample size calculation

The sample size was statistically estimated to be 376 based on the single proportion formula with allowable error of 5%. The prevalence rate was used from the results of a pilot study conducted.

Outcome interest

Compliance of various sections of the COTPA Act 2003 like (Section 4, Section 5, Section 6, and Sections 7, 8, and 9) has been studied.

Ethical committee clearance

Ethical clearance was obtained from Institutional Review Board.

Data management and statistical analysis

Data were assessed using Statistical Package for Social Sciences (SPSS) version 21.0 and descriptive tests were applied.

Table 1: Types of public places visited

	Accommodation facilities/restaurant	Educational establishments	Offices and workplaces	Healthcare facility	Most frequently visited places	Public transport facility/metro station	Total
South zone							
Hauz Khaz	6	4	5	2	2	3	22
Saket	7	5	4	1	3	4	24
Lajpat Nagar	8	7	5	2	5	3	30
Sarita Vihar	6	3	3	2	3	3	20
							96
East zone							
Laxmi Nagar	3	4	3	0	2	3	15
Anand Vihar	7	2	2	1	3	4	19
Preet Vihar	5	3	2	2	3	3	18
Mayur Vihar	6	4	2	2	4	3	21
Total places visited							73
West zone							
Patel Nagar	4	4	1	3	3	2	17
Janakpuri	5	2	1	1	3	2	14
Rajouri Garden	4	3	3	1	3	3	17
Kirti Nagar	5	4	1	1	4	3	18
Total places visited							66
North zone							
Kashmere Gate	7	1	2	0	5	5	20
Chandni Chowk	8	4	2	2	4	4	24
Model Town	5	3	1	1	2	2	14
Civil Lines	4	3	1	1	2	2	13
Total places visited							71
Central zone							
Jama Masjid	7	3	1	1	4	3	19
Karol Bagh	6	5	2	1	4	3	21
Rajender Nagar	5	3	1	1	3	2	15
Pahar Ganj	5	3	0	1	2	4	15
Total places visited							70

Overall total public places visited in Delhi is 376

Results

A total of 376 places were visited, of which 113 were accommodation facilities/restaurants, 70 were educational institutions, 42 were offices and workplaces, 26 were healthcare facilities, 64 were most frequently visited places, and 61 were public transport facilities/metro station in Delhi [Table 1].

Table 2 shows the compliance of different sections of the COTPA Act in various zones of Delhi; in Section 4, active smoking was seen in 47.34% of the total places visited in Delhi, of which in the west zone active smoking was seen in 57.58% of the total places visited; as with other zones, 50.69%, 39.59%, 45.08%, and 47.15%, respectively, were not following Section 4 of the COTPA Act.

In compliance of Section 5, about 98.43% of shops in the west zone were not advertising any tobacco products; as with other zones, 98.43%, 97.22%, 96%, and 97.46%, respectively, followed Section 5 of the COTPA Act.

In Section 6 of COTPA, a total of 70 educational institutions were visited during the study, of which in the central zone (42.85%) shops were selling cigarettes to people below 18 years of age. However, in other zones, 23.07%, 36.36%, 26.31%, and 30.76%, respectively, were not following Section 6(a) of the COTPA Act.

To check the compliance of Section 6-b which prohibits selling of tobacco products within 100 yards of educational institutions, in the west zone of Delhi, 64.28% were not following Section 6(b) of the COTPA act when compared with other zones 61.53%, 36.36%, 57.89%, and 35.71%, respectively.

Figure 1 shows the compliance of different sections of the COTPA Act in various zones of Delhi. The west zone showed highest compliance of various sections (Sections 5 and 6-a).

Discussion

The use of tobacco is a leading avertable cause of early death and illness today.[9] With change in lifestyle of mankind, there is increase in the use of tobacco, due to which of the 1.3 billion smokers worldwide, about 900 million smokers are in developing countries. Lack of information and explicit health hazards related to tobacco and strategy of tobacco company

Table 2: Compliance of Sections 4, 5, and 6 of COTPA in various zones of Delhi

	Yes	No
Section 04 (Prohibition of smoking in public places)		
South zone	58 (60.41%)	38 (39.59%)
East zone	36 (49.31%)	37 (50.69%)
West zone	28 (42.42%)	38 (57.58%)
North zone	39 (54.92%)	32 (45.08%)
Central zone	37 (52.85%)	33 (47.15%)
Section 05: Prohibition of advertisement of cigarette and other tobacco products)		
South zone	72 (96%)	3 (4%)
East zone	59 (98.33%)	1 (1.67%)
West zone	63 (98.43%)	1 (1.57%)
North zone	70 (97.22%)	2 (2.78%)
Central zone	77 (97.46%)	2 (2.54%)
Section 06-a (Prohibition of sale of tobacco products to under 18 years of age)		
South zone (19)	73.68% (14)	26.31% (5)
East zone (13)	76.92% (10)	23.07% (3)
West zone (13)	69.23% (9)	30.76% (4)
North zone (11)	63.63% (7)	36.36% (4)
Central zone (14)	57.14% (8)	42.85% (6)
Section 06-b (Shops within the radius of 100 m of educational institute)		
South zone (19)	42.10% (8)	57.89% (11)
East zone (13)	38.46% (5)	61.53% (8)
West zone (13)	30.76% (4)	69.23% (9)
North zone (11)	63.63% (7)	36.36% (4)
Central zone (14)	64.28% (9)	35.71% (5)

to attract teenagers and women are key aspects that increase tobacco consumption.[10] According to Global Adult Tobacco Survey (GATS) India (2009–10), an average Indian cigarette smoker smokes about 6.2 cigarette sticks per day and 11.6 bidi sticks per day.[6] WHO made serious attempts to restrict tobacco risk and protect the affected population and support various countries for designing and ratifying various tobacco control policies. MPOWER was introduced for effective intervention to decrease tobacco demand and to track the status of tobacco epidemic worldwide. Many countries have effectively implemented the WHO MPOWER for combating tobacco epidemic which can be used as a model for those countries which have so far not adopted these measures; however, India is still lagging behind in some of MPOWER measures such as smoke-free policies, compliance with ban on advertising, and taxation which need to be improved to decrease tobacco epidemic.[11]

Section 4: COTPA

In this study, we observed that active smoking was seen in 47.34% of open places in Delhi, and the highest prevalence of smoking was seen in the west zone (57.58%) and the least was observed in the south zone (39.59%); however, in a similar study done by Jain ML *et al.* in Alwar District of Rajasthan and Goel S *et al.* in Chandigarh, active smoking was seen only in 6% and 19.5%, respectively, of the total public places visited.[12,13] In addition, according to WHO MPOWER (2015), India is ranked by score 3, that is, six to seven public places completely smoke-free.

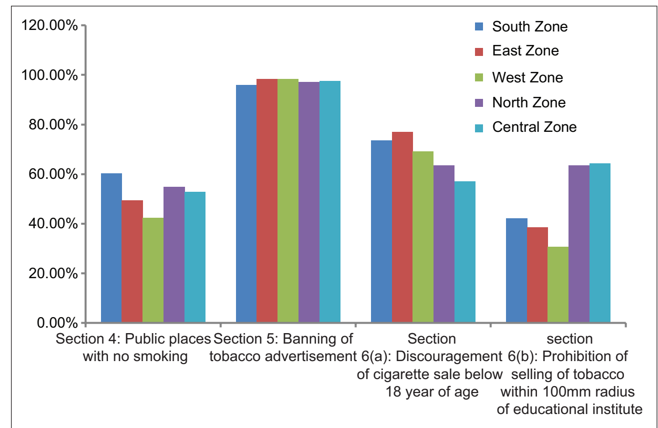

Figure 1: Compliance of different sections of COTPA Act in various zones of Delhi

A high prevalence in our study may be due to lack of strict laws with regard to the violation of this section. In the year 1996, "Delhi Prohibition of Smoking and Nonsmokers Health Protection Act" was passed, which prevents smoking in open places, by implementing a fine of only Rs. 200. There is a need of appropriate administration of act by increasing the penalty and by giving strict punishment to the offender. A notice should be kept in every open place, and if someone is violating the law the other can call the enforcement officials. The government needs to reinforce and execute the act, at various national, state, and sub-state levels so as to avoid the use of tobacco among most vulnerable group such as youth.[14]

Section 5: COTPA

Under Section 5 of COTPA "Prohibition of advertisement of cigarette and other tobacco products," it was found that a majority (98.43%) of the public places visited in the west zone did not advertise tobacco products, and in the south zone (96%) Section 5 of COTPA act as followed. India is ranked by score 2, that is, Moderate Compliance with bans on advertising (3/10-7/10) by WHO MPOWER (2015). According to a study done in 2008 and 2010, it was found that tobacco advertisements have great impact on the use of tobacco among students, and thus reinforcement of tobacco policy and awareness regarding the ill effects of tobacco among youth might reduce the consequence of such exposure.[15,16] Media can play an important role in giving information to youth about various health hazards and dispiriting tobacco use. Adults get maximum information about anti-tobacco from electronic media, followed by print media (GATS India 2009–10).[6]

Section 06-a: COTPA

For assessing compliance of Section 6 of COTPA, it was found that in the central and east zones (42.85% and 23.07%, respectively), shops were selling tobacco products to people below 18 years of age; neither they displayed the signage board nor they enquires about the age proof before selling tobacco products; however, in a similar study done by Jain ML *et al.* in Alwar District of Rajasthan and Pimple *et al.* in Mumbai, about

93% and 56.3%, respectively, displayed the signage board.[12,17] Cigarette smoking has great influence on the health and is the only product in the globe that causes death prematurely. Youth consider smoking to be more fashionable, and to fit themselves with their peer group they start smoking;[18,19] as seen in a study by Breslau *et al.*, the person who initiated smoking at 14–16 years of age is (1.6 times) more reliant on smoking than those who initiated at older age, because youth get more dependent on nicotine that physically damages the young by keeping them to smoke longer.[20]

Section 06-b

For the compliance of Section 6-b, it is mandatory for all concerned to display a board outside the campus warning that selling of all forms of tobacco products in the range of 100 yards is restricted and is a punishable crime. In our study, we observed that in the west zone fixed shops (69.23%) were selling tobacco products in the radius of 100 mm of the school, while in the central zone only (35.71%) were selling tobacco products outside 100 mm radius of school; however, in a similar study done by Habbu and Krishnapp in Bengaluru and Goel S, *et al.* in Chandigarh, about 76.2% and 32.5%, respectively, shops were selling tobacco products within a radius of 100 mm.[13,21] Since the frequency of tobacco use is more prevalent among youth, there is a need to execute and impose stringent law to prevent youngsters from experimenting.[22] Factors such as peer-group influence, easy availability, and inadequate knowledge are actively linked with the use of tobacco. To counter such aspects, a stable and extensive tobacco control policy should be executed and it should be mandatory for all the schools to educate and instruct the students about hazards of tobacco use.[23]

Sections 7, 8, and 9

In Delhi, 100% compliance of Sections 7, 8, and 9 has been observed, but according to WHO MPOWER India is ranked by score 1, that is, no warnings or small warnings. WHO (2016) recommended all countries for plain (standardized) packaging of tobacco products, so as to lower the attractiveness of tobacco products, to reduce companies in using tobacco packaging as promotion and advertising and raise the effectiveness of health warnings.[24] The Government of India on July 2006 made mandatory for all tobacco products to display pictorial warnings on both sides of tobacco products. A study conducted by the National Heritage City Development and Augmentation Yojana (HRIDAY) and MOHFW, Government of India, prepared a five-pictorial warning, of which four tobacco warnings were notified on July 05, 2006. This law was implemented by the Government of India on May 2009, and it made compulsory for all tobacco product packages to display pictorial health warnings. Pictorial health warning is an useful method to caution about adverse effects, resulting in decrease in tobacco consumption as seen in countries like Canada, Uruguay, Brazil, and Thailand. In addition, the Government of India should impose a ban on selling of loose cigarette as it is easily affordable to students and minors and the person who buys is not able to see warning made on the packets of cigarette which will defy the overall purpose.[14]

The most efficient and cost-effective policy for reducing tobacco use can be done by raising tobacco taxes. Since the cost of tobacco is reasonably prized, it is easily affordable for youngsters. Raising the tax will reduce the tobacco use and public health damage it causes, because young people are very price-sensitive. According to WHO, the consequence of price increase in developing counties is more when compared with developed countries resulting in reduction in tobacco use.[10] In India over the past few years, taxes on tobacco products are low, resulting in easy affordability to a larger population. The union government along with various NGOs and civil welfare associations should take necessary steps to alert and educate people about various health hazards of tobacco consumption which will result in tobacco-free India.[25]

The two primary means which can be used for reducing the prevalence of tobacco use is by decreasing the proportion of non-using people who initiate tobacco use or by increasing the proportion of current users who quit. A successfully executed COTPA Act is one of the effective methods to minimize tobacco consumption. This can be achieved by proper implementation of this act by the Indian Government.

Recommendations

1. Measures should be taken at various national and state levels for successful execution of the act as per MPOWER. Every state should focus on efficient execution of law.
2. To efficiently convey health hazard to large population, health warning on all tobacco product should be clear and packaging should be plain to prevent attractiveness to the users.
3. The government needs to increase the penalty amount imposed on persons who smoke in public place. Smoke sensors need to be placed in every public place (hospitals, railways stations, building, etc.) so that the offender is caught easily and strict action should be taken.
4. Complaint cell along with board containing the phone number of person in-charge should be displayed in every public place, so that complaint of violation may be made against the offender.
5. Since the sale of tobacco is legally permitted, the government should always see the constituent associated with tobacco because the companies raise the nicotine level so that more and people get addicted to tobacco use.
6. Anti-tobacco message and harmful effect of tobacco use should be displayed on all air tickets, electric bills, identity card, and so on, and warning board containing "No Smoking Area – Smoking Here is an Offence" should be displayed in every public place. In every hospitals and public building, smoke sensors should be fixed, and if someone is caught violating the law, a strict action against the offender should be taken.

7. The government should start tobacco cessation programs by execution of public health path such as smoke-free workplaces, mass media campaigns, and helpline services at various state and national levels, and healthcare providers should be trained including behavior counseling and pharmacotherapy which will improve the overall strategy in tobacco control.

Conclusion

Educating people along with strong support of the government is essential if tobacco epidemic is to be brought under control. Based on the finding of our study, it was found that after years of implementation of the COTPA Act 2003, there are still certain sections like (Section 4 and Section 6) which were not fully implemented in Delhi. Global tobacco control program, which combines high levels of dedication, preparation, presentation, and determination, along with better participation and investing from various health policy makers, institutions, media, NGOs, and so on, can help in minimizing the usage. Public health awareness, educating tobacco control policies, and tobacco cessation to healthcare professional, conferences, and workshop will assist hundreds of people to quit tobacco habit.

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Conflicts of interest

There are no conflicts of interest.

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