



Knowledge attitude and practices regarding the cigarettes and other tobacco products act (COTPA) in Khammam, Andhra Pradesh

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Abstract

Background: 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, attitudes and practices of population regarding COTPA is necessary to effectively implement the legislation. Hence the present study was undertaken. **Material and methods:** The present study was a cross-sectional community based survey carried out in Khammam town. Data was collected using a structured schedule by interviewing 322 participants (mean age 37.5 years). Proportions, percentages and Odd’s ratio were calculated for relevant variables. **Results:** Overall awareness about COTPA was 47.5%. Higher education, higher SES, and increasing age had positive influence on awareness. Awareness regarding any tobacco related health problem was very high at 97.5%, among which it was highest (49.4%) for cancer followed by respiratory disease (37.6%). About two thirds (68.9%) of the participants had a favourable attitude towards COTPA. The positive attitude was more (73.3%) towards display of health warnings on tobacco products. Older participants (OR 7.6), people from higher SES, and more years of education were more likely to have positive attitude towards COTPA (OR 4.5). Current use of any tobacco was reported by 56.2% of the participants. **Conclusion:** a concerted effort has to be made to increase the awareness of the Act amongst the vulnerable population.

Keywords: Attitude, Awareness, COTPA, Khammam, Tobacco

Introduction

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 put together. And this figure is expected to rise to 10 million tobacco deaths annually by 2025. 500 million die prematurely due to tobacco use; most of these are children and young adults of today [1].

One-fifth of all worldwide deaths attributed to tobacco occur in India; more than 8, 00,000 people die and 12 million people fall ill due to tobacco use each year [1].

Tobacco addiction is the most widespread addiction in the world. There are nearly 1.3 billion smokers in the world, 80% of them are in the developing

countries. India has more than 300 million smokers. Tobacco use is the leading cause of death in the world [2].

Tobacco is the only legally available consumer product which kills people when it is used entirely as intended [3].

In India, beedi smoking is the most popular form of tobacco smoking (54%); cigarette smoking is the second most popular form of tobacco smoking (16%); while tobacco chewing accounts for 30% of the total consumption. Paan with tobacco is the major chewing form of tobacco. Dry tobacco, areca nut preparations such as paan masala, gutka, khaini and mawa are also popular and highly addictive [2].

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.

Although the tobacco industry claims it creates jobs and generates revenues that enhance local and national economies, the industry's overriding contribution to any country is suffering, disease, death – and economic losses. Tobacco use currently costs the world hundreds of billions of dollars each year [4]. Several negotiations later, the World Health Assembly in May 2003 finally adopted the Framework Convention on Tobacco Control (FCTC), which has provisions for members to have comprehensive legislation to curb the tobacco epidemic [5].

India was one of the first few countries that ratified the FCTC. The Government of India formulated “The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act (COTPA)” on May 18, 2003. In 2004, the rules regarding COTPA provisions were notified. As per the act, smoking is prohibited in all public places, ban is placed on advertisements of tobacco products, and prohibition of sale of tobacco products to minors and within 100 yards of educational institutions [6].

The Andhra Pradesh state government had formulated “The Andhra Pradesh Prohibition of Smoking and Health Protection Act, 2002” even before the official announcement of COTPA, 2003. Despite of it the use of tobacco in the state is amongst the highest in south India [7].

The implementation of this law remained largely ineffective in the initial years. The Government of India reviewed the situation and revised the law, with effect from 2nd October 2008, making additional provisions to improve the implementation of smoke free law [8].

Not many studies have been done on awareness and attitudes of the general public regarding Cigarettes and Other Tobacco Products Act (COTPA). For effective implementation of Tobacco control knowledge regarding the awareness, attitudes and practices of the population towards tobacco control is necessary. Hence the present study was undertaken among adults in Khammam town with an aim to find the awareness, attitudes and practices regarding Cigarettes and Other Tobacco Products Act (COTPA).

Material and Methods

The present study was a cross-sectional community based survey carried out in Khammam town

of Khammam district, after being approved by the Institutional Ethics Committee of Mamata Medical College, Khammam. The study was carried out in the months of May and June 2011.

The study included adults 18 years and above who were willing to participate. Written informed consent was obtained along with the interview from all the participants and they were free to opt in or out of the study.

The sample size of 322 was obtained based on an anticipated awareness level of 29% with an allowable error of 5%. The subjects were randomly selected from the wards in the jurisdiction of Khammam Municipal Corporation in Andhra Pradesh.

The data was collected using a structured schedule by interviewing the study participants in local language. Information on socio-demographic variables, highest level of education, occupation and monthly household incomes was obtained and recorded verbatim. Socio-economic status (SES) was assessed using Kuppaswamy's SES scale updated for 2012 [9].

Data on awareness about any tobacco control law in India, tobacco related health problems, perceptions about secondhand smoke, attitude towards the tobacco control law and information about use of tobacco was collected.

The schedule included 11 questions to assess the awareness level of adults regarding COTPA, 8 questions to assess attitude towards the COTPA and 7 questions regarding use of tobacco.

The Likert scale was used to assess attitude towards COTPA, which had 5 choices i.e., strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. The choices were given a score from 1 to 5, 1 for strongly disagree rising to 5 for strongly agree. The choices of strongly agree and agree were taken as positive responses and the other choices of neither agree nor disagree, disagree and strongly disagree were considered as negative responses.

Statistical analysis was done using SPSS version 11.0, after entering the data in Microsoft Office Excel, 2007. Proportions, percentages and Odds ratio were calculated for relevant variables. A p value of <0.05 was considered statistically significant.

Results

Among 322 participants of the study 189 (58.7%) were males. The mean age of the study population was 37.57 ± 15.7 (range 18-72), majority (56.8%) belonged to 18-35 age group. (Table 1)

Literacy rate among the participants was very high at 95.7%, with 44.5% having education upto intermediate or more. Majority (57.5%) of them belonged to lower socio-economic class despite of having higher literacy rates. (Table 1)

Regarding awareness about Cigarettes and Other Tobacco Products Act (COTPA), 47.5% of the participants were aware of any Act/Legislation related to tobacco products. (Table 2)

The awareness was more among participants with education upto graduation or more as compared to illiterates and education upto primary school (Odd's ratio [OR] 4.27, 95% CI 1.89-9.63). (Table 5)

About 122 (37.9%) of the participants were aware about penalty for violating the Act. Only 54 (16.8%) and 61 (18.9%) were aware about ban on sale of tobacco products to minors and ban on selling tobacco products near educational institutions respectively. (Table 2)

A huge majority (97.5%) of the participants were aware of some health problem associated with tobacco use. With regard to awareness about specific health problems, nearly half of them (49.4%) were aware that tobacco use can cause cancer, 37.6% knew about tobacco related respiratory problems, 27% said that tobacco use can cause Tuberculosis and only 18.9% knew that tobacco use can cause heart problems. Majority (68.3%) were aware of the harmful effects of exposure to second-hand smoke. (Table 2)

Regarding attitude towards COTPA, more than half the participants were having a positive attitude towards COTPA. A vast majority (73.3%) favouring display of health warnings on tobacco products, more than half (68.9%) favoured ban on smoking in public places and 67.4% favoured ban on selling tobacco products to minors. (Table 3)

The participants aged 36-60 years were 7 times (Odd's ratio [OR] 7.66, 95% CI 3.17-18.54) and those belonging to Upper and middle socio-economic class were nearly 4 times (OR 3.81, 95% CI 2.21-6.54) more likely to have a positive attitude towards COTPA compared to their counterparts. (Table 6)

The participants with graduation or higher education were significantly more likely to have a favourable attitude towards COTPA ($p < 0.001$). (Table 6) Though a vast majority of the participants were having a positive attitude towards COTPA, only 84 (26%) of them said that they would personally object to smoking in public places in their presence citing poor implementation of the Act. (Table 3)

Higher age, education and socio-economic class seemed to have a positive influence on attitude towards COTPA.

Table 1: Socio demographic characteristics of the study population (n=322)

VARIABLE	Numbers	%
Age group (yrs)		
18-35	183	56.8
36-60	82	25.5
60+	57	17.7
Sex		
Male	189	58.7
Female	133	41.3
Education		
Profession or Honours	19	6
Graduate or Post graduate	55	17.1
Intermediate or post high school diploma	69	21.4
High school certificate	81	25.1
Middle school	59	18.3
Primary school	25	7.8
Illiterate	14	4.3
Occupation		
Profession	8	2.5
Semi-profession	11	3.4
Clerical, shop owner, farmer	89	27.7
Skilled worker	51	15.8
Semi-skilled worker	57	17.7
Unskilled worker	79	24.5
Unemployed	27	8.4
SES		
Upper (I)	3	0.9
Upper middle (II)	28	8.7
Lower middle (III)	106	32.9
Upper lower (IV)	131	40.7
Lower (V)	54	16.8

Regarding use of tobacco products, more than half (69.2%) of the study population was found to be exposed to tobacco products either in past or present. Out of the 56.2% participants currently using some form of tobacco, 33.5% were current smokers and 28.2% currently using smokeless tobacco. About 44% of the

participants had someone in family currently using some form of tobacco product. (Table 4)

About half (51.2%) of the participants said that this Act (COTPA) had changed their preferences towards tobacco products. (Table 4)

Table 2: Awareness about COTPA and tobacco related health problems (n=322)

Awareness about tobacco related health problems	Numbers	%
Awareness about Act/Legislation regarding tobacco products (COTPA)	153	47.5
Awareness about penalty for violation of Act	122	37.9
Awareness about ban on selling tobacco products near educational institutes	54	16.8
Ban on sale of tobacco products to minors	61	18.9
Health warnings on tobacco products	74	23
Awareness of any tobacco related health problems	314	97.5
Cancer	159	49.4
Respiratory disease	121	37.6
Heart disease	61	18.9
Tuberculosis	87	27
Hypertension	30	9.3
All of the above	29	9
Awareness of the harmful effects of second hand smoke	220	68.3

* Percentages do not add upto 100 because of multiple answers

Table 3: Attitude towards COTPA (n=322)

Attitude toward COTPA	Numbers	%
Positive attitude towards ban on smoking	222	68.9
Positive attitude towards ban on selling tobacco products to minors	217	67.4
Positive attitude towards ban on selling tobacco products near educational institutes	196	60.9
Positive attitude towards health warnings on tobacco products	236	73.3
Object others smoking in public places in their presence	84	26

* Percentages do not add upto 100 because of multiple answers

Table 4: Practices of tobacco use (n=322)

Practices of Tobacco use	Numbers	%
Ever use of tobacco product	223	69.2
Current use of tobacco product	181	56.2
Currently smoking	108	33.5
Current use of smokeless tobacco	91	28.2
Anyone in family using tobacco product	142	44
Did this act change your preferences towards tobacco products	165	51.2

* Percentages do not add upto 100 because of multiple answers

Table 5: Odd's ratios for awareness of COTPA (n=322)

Variable	Odd's ratio	95% Confidence interval	p value
Age group (yrs)			
18-35	Ref		
36-60	3.99	2.24-7.11	0.000
Education			
Illiterate	Ref		
Graduate/ Post graduate	10.31	5.26-20.17	0.000
SES			
Lower	Ref		
Middle and Upper	3.9	1.63-9.31	0.003

Table 6: Odd's ratios for Attitude towards COTPA (n=322)

Variable	Odd's ratio	95% Confidence interval	p value
Age group (yrs)			
18-35	Ref		
36-60	7.66	3.17-18.54	0.000
Education			
Illiterate	Ref		
Graduate/ Post graduate	18.39	7.74-43.70	0.000
SES			
Lower	Ref		
Middle and Upper	4.58	1.60-13.10	0.007

Discussion

In the study population 47.5% of the participants were aware of any tobacco related law/act, which is more or less similar (45.7%) to the observations of Sharma et al. [10]. The awareness levels regarding COTPA have to be raised further for effective implantation of the legislation and dissuade people from using tobacco and other related products.

The awareness of COTPA increased significantly with increasing age upto 60 years, higher SES and higher education, which is similar to the findings of a study done in Assam, [10] Efforts should be made to increase the awareness levels amongst the vulnerable population i.e., the younger age group people, less educated people and those from lower SES.

There was variation in the awareness levels regarding various components of COTPA, least being about ban on sale of tobacco products within 100 yards of educational institutions.

In the current study a vast majority (97.5%) of the participants were aware about at least some health problem, which was similar to the observations of a study done in Assam and Gujarat, [10,11] but contrast to the study done in Kolkata where it was only 75% [12].

Awareness about specific health problems because of tobacco use, viz., cancer, respiratory disease and heart problems was similar to some older studies. [10,13,14]

In general there was a positive attitude towards COTPA, despite of having lower awareness regarding the same. Majority of them favoured use of pictorial health

warnings, followed by ban on sale of tobacco products to minors and near educational institutions. These findings of the present study concurred with that of other studies. [15,16]

With increasing age the attitude towards COTPA increased significantly, probably because older population had seen and experienced the harmful effects of tobacco. An improvement in SES favoured a positive attitude towards COTPA, which was similar to the study done in China. [17]

Regarding tobacco practices in the current study about 69.2% participants reported an ever use of any tobacco product, while 56.2% were current users of whom 33.5% were smokers. Nearly 28% of the participants were currently consuming smokeless form of tobacco. The present study observations were higher than the national averages as observed in Global Adult Tobacco Survey (GATS) 2010. [18]

Conclusions

Nearly half the participants had awareness of COTPA and nearly two thirds had an overall positive attitude towards COTPA. Yet participants opined that the implementation of the Legislation was not effective. Hence a concerted effort has to be made to increase the awareness of the Act amongst the vulnerable population, i.e., younger population, people from lower SES, and less educated people. Also the Act should be implemented in true spirit so as to dissuade the population from falling victims to the Tobacco epidemic.

Limitations

The present study was a cross-sectional community based undertaken in an urban area, hence the findings may not be extrapolative to rural populations.

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