



Knowledge and Attitude of Tobacco use and Cotpa (Cigarette and Other Tobacco Products Act) Law Among Parents Visiting the Pediatric Dental Clinic-A Cross Sectional Questionnaire Survey

Umopathy T^{1*} and Susan Kattimani²

¹Professor Department of Pedodontics and preventive Dentistry, Raja rajeswari dental college and hospital, Rajiv Gandhi University of Health Sciences, India

²PG Student Department of Pedodontics and preventive Dentistry, Raja rajeswari dental college and hospital, Rajiv Gandhi University of Health Sciences, India

***Corresponding Author:** Umopathy Thimmegowda, Department of Pedodontics and Preventive Dentistry, Raja rajeswari Dental college and hospital, Bangalore, Rajiv Gandhi University of health sciences, India.

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Abstract

Introduction: "Today's adolescents are tomorrow's citizens". Education is not only a tool for development of an individual, community or a nation. It is the foundation of our future. Children are like wet cement whatever falls on them makes an impression. Good habits formed at youth makes a great difference in adulthood. It is time for parents to teach young adolescents early on their forming tobacco habits and awareness about the health hazards of tobacco and COTPA law.

Aim: The purpose of this study is to assess the knowledge and attitude regarding the hazards of tobacco use and COTPA Law among the parents visiting paediatric dental clinic.

Method: A cross sectional survey was conducted using a self-administered questionnaire about the knowledge and attitude regarding the hazards of tobacco use and COTPA law with the sample size of 100 parents of adolescents aged between 10-16 years who visited the department of Pedodontics and Preventive dentistry. The data thus obtained was subjected to statistical analysis.

Results: In the present study, the most common smoking tobacco product known to the parent population is cigarette (98%) and smokeless tobacco product is pan masala (91%). Awareness about tobacco health hazards is 81% and COTPA law is 80%. 7% of parents are not sure of strict implementation of COTPA law. 16% agree for strict implementation of COTPA law, 77% of parents strongly agree for strict implementation of COTPA law in India.

Conclusion: Knowledge and attitude of parents is required to educate and motivate adolescents as it is easier to prevent bad habits than to break them in children. The best way to stop a habit is not to begin, because habits are easier to abandon today than tomorrow, as it is easier to build strong children than to repair broken men. We would like to conclude that Intervention should start prior to teenage before they could form their opinion and start consuming tobacco. Parents have given their positive opinion regarding the strict implementation of COTPA law in India and realise the role of tobacco as a causative factor for health hazards both in children and adults.

Keywords: Parents; Adolescents; Knowledge; Attitude; Hazards of Tobacco; COTPA Law

Abbreviations

COTPA: Cigarette and Other Tobacco Products Act; SPSS: Statistical Package For Social Sciences; WHO: World Health Organization; GYST: The Global Youth Tobacco Survey; SHS: Second-Hand Tobacco Smoke

Introduction

Childhood is a mirror which reflects the propensities of adulthood [1]. The main hope of a nation lies in the proper education of its adolescents, as the youth of today are the leaders

of tomorrow. Hence the foundation of every nation lies in the education of its youth. Adolescent is a person who is 10-19 years age group as defined by WHO and constitute of about 22.8% of Indian population [2].

The global youth tobacco survey (GYTS) indicates that nearly 15% of children in the age group of 13 - 15yrs are consuming tobacco in some form. There is also evidence that each day 5500 new youth are getting addicted to tobacco [3]. Tobacco use in children and adolescents is reaching pandemic levels as they are the most vulnerable population to initiate tobacco use. It is well established that most of the adult users of tobacco start tobacco use either in their childhood or adolescence [4].

Adolescent is the normal aspect of development in children, where they desire to try new things. Risks may increase teen to experiment with these tobacco products [5]. Adolescents typically become addicted to nicotine while still being teenagers. Tobacco is also smoked in smoking forms like cigarette and beedies and using various devices like hookah, chhutta, dhumti in different part of the country. Thus in contrast smokeless forms such as khaini, mawa, snuff, and gutka and pan masala are also used in India [4].

Health hazards related to tobacco products are lung and heart diseases, kidney diseases, mental disorders, cancer, harmful effects on premature babies and children [6]. Various harmful effects of using tobacco products in the oral cavity are a lump in the mouth that does not heal, white patch in the mouth or gums, tightening of the inner cheeks, difficulty in chewing and swallowing food [7]. The determinants of the tobacco use among adolescents are associated with parental influence, school personnel, peer pressure, exposure to media advertisements, and sale of tobacco products near public places [8]. Cigarette and Other Tobacco Products ACT (COTPA) includes prohibition of sale of tobacco products to minors below 18 years and within 100 yards of educational institutions. Mandatory display of pictorial health warning on tobacco product packages, it is necessary to effectively implement the legislation and to increase the awareness of the act amongst the vulnerable population [9].

There are very few studies in literature on hazards of tobacco use and awareness about COTPA law among Indian parent population. Hence the aim of this study is to assess the Knowledge and Attitude regarding hazards of tobacco use and COTPA law and to create awareness among parents visiting paediatric dental clinic.

Methodology

A cross -sectional study was conducted among the parents visiting the department of Pedodontics and Preventive dentistry

at Rajarajeswari dental college and hospital. The study was conducted on 100 parents of children aged from 10-16 years. An inclusion criterion includes parents of children aged from 10-16 years and who gave written informed consent. Exclusion criteria parents who did not give consent to participate in the study and parents of children below the age of 10 years.

A self administered structured questionnaire which consists of 15 questions was used to collect the responses for the knowledge and attitude regarding hazards of tobacco use and COTPA Law. The questionnaire consisted of socio-demographic characteristics, hazards of tobacco use, factors influencing tobacco habits and COTPA Law which was in English and was translated to Kannada and back translated for content, face and validity.

The data thus obtained was subjected to statistical analysis. Statistical Package for Social Sciences [SPSS] for Windows Version 22.0 Released 2013. Armonk, NY: IBM Corp was used to perform statistical analysis.

Results

The distribution of socio-demographic characteristics among the study participants was with the age group ranging from 28-60 with the mean value of 40. According to the parents gender females dominated 59% whereas males were 41%. Based on the education level ranging from primary school to masters, education level was dominated with bachelor's degree by 27% and included 1% of illiterates. Occupation level of parents ranged from unemployed to professional workers in which the professional parents were dominated by 28% and semi-professionals ranged least with 0%. The age of the children ranged from 10-16 years with the mean age of 12.3 where children less than 12 years were about 47 and children above the age of 12 were 53. Gender was dominated by males by 56% whereas the females were 44%.

The most common product know to the parent population was cigarettes by 98%, where 100% of male parents 96.6% of female parent were aware of it. Among the other types of tobacco smoking products like beedis (83%), hookah (35%), hookli (20%), chutta (29%), dhumti (19%) and chillum, where chillum was the least common tobacco product by 12% (Table 1).

Amongst the type of smokeless tobacco products pan masala was the most common product known by 91% of parents, followed by Gutka (78%), snuff (39%), khaini (34%), and mawa (33%) (Table 2).

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		n	%	n	%	n	%		
Types of Tobacco Smoking									
Cigarettes	No	0	0.0%	2	3.4%	2	2%	1.418	0.23
	Yes	41	100.0%	57	96.6%	98	98%		
Beedies	No	5	12.2%	12	20.3%	17	17%	1.137	0.29
	Yes	36	87.8%	47	79.7%	83	83%		
Hooka	No	22	53.7%	43	72.9%	65	65%	3.929	0.06
	Yes	19	46.3%	16	27.1%	35	35%		
Hookli	No	29	70.7%	51	86.4%	80	80%	3.731	0.06
	Yes	12	29.3%	8	13.6%	20	20%		
Chutta	No	21	51.2%	50	84.7%	71	71%	13.205	<0.001*
	Yes	20	48.8%	9	15.3%	29	29%		
Dhumti	No	29	70.7%	52	88.1%	81	81%	4.761	0.03*
	Yes	12	29.3%	7	11.9%	19	19%		
Chillum	No	32	78.0%	56	94.9%	88	88%	6.517	0.01*
	Yes	9	22.0%	3	5.1%	12	12%		

Table 1: showing the knowledge of various types of Tobacco smoking in parent population.

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	n	%	n	%		
Types of Smokeless Tobacco									
Khaini	No	17	41.5%	49	83.1%	66	66%	18.644	<0.001*
	Yes	24	58.5%	10	16.9%	34	34%		
Mawa	No	20	48.8%	47	79.7%	67	67%	10.433	0.001*
	Yes	21	51.2%	12	20.3%	33	33%		
Snuff	No	20	48.8%	41	69.5%	61	61%	4.362	0.04*
	Yes	21	51.2%	18	30.5%	39	39%		
Gutka	No	8	19.5%	14	23.7%	22	22%	0.251	0.62
	Yes	33	80.5%	45	76.3%	78	78%		
Pan Masala	No	5	12.2%	4	6.8%	9	9%	0.866	0.35
	Yes	36	87.8%	55	93.2%	91	91%		

Table 2: showing the knowledge of various types of smokeless tobacco known to the parent population.

Various health hazards related to tobacco products were known amongst them cancer was the most common health hazard known by the parent population by 84% other diseases like Lung and heart diseases by (81%) kidney diseases by (42%). The impact of mental illness caused by these tobacco product were least known to only 40% of the parent population (Table 3).

Among the risks of passive smoking of tobacco, cancer is the most common risk known to the parent population by 81% followed

by increased risk for lung diseases by (76%) effect on premature babies was known by 50%. The effect of passive smoking on children were least known by 49% (Table 4).

Statistically significant among the harmful effects of using tobacco in the mouth a non-healing lump in the mouth was about 69%. 64% of parents knew about the white patch in the mouth. 44% of parents knew about the tightening of inner cheeks and 64% knew about the difficulty in swallowing food (Table 5).

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	n	%	n	%		
Health Hazards related to Tobacco Products									
Lung & Heart Disease	No	6	14.6%	13	22.0%	19	19%	0.861	0.35
	Yes	35	85.4%	46	78.0%	81	81%		
Kidney Diseases	No	23	56.1%	35	59.3%	58	58%	0.103	0.75
	Yes	18	43.9%	24	40.7%	42	42%		
Mental Disorders	No	26	63.4%	34	57.6%	60	60%	0.338	0.56
	Yes	15	36.6%	25	42.4%	40	40%		
Cancer	No	5	12.2%	11	18.6%	16	16%	0.749	0.39
	Yes	36	87.8%	48	81.4%	84	84%		

Table 3: Showing various health hazards related to tobacco products known to the parent population.

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	n	%	n	%		
Harmful Effects of Passive Smoking									
Effect on premature babies	No	24	58.5%	26	44.1%	50	50%	2.026	0.16
	Yes	17	41.5%	33	55.9%	50	50%		
Effect on children	No	22	53.7%	29	49.2%	51	51%	0.197	0.66
	Yes	19	46.3%	30	50.8%	49	49%		
Increases risk of cancer	No	4	9.8%	15	25.4%	19	19%	3.858	0.06
	Yes	37	90.2%	44	74.6%	81	81%		
Increases risk of lung diseases	No	9	22.0%	15	25.4%	24	24%	0.160	0.69
	Yes	32	78.0%	44	74.6%	76	76%		

Table 4: showing the knowledge of harmful effects of passive smoking in parents.

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	n	%	n	%		
Harmful Effects of using Tobacco products in the Mouth									
Non healing lump in mouth	No	11	26.8%	20	33.9%	31	31%	0.565	0.45
	Yes	30	73.2%	39	66.1%	69	69%		
White patch in mouth	No	12	29.3%	24	40.7%	36	36%	1.367	0.24
	Yes	29	70.7%	35	59.3%	64	64%		
Tightening of inner cheeks	No	19	46.3%	37	62.7%	56	56%	2.631	0.11
	Yes	22	53.7%	22	37.3%	44	44%		
Difficulty in chewing & swallowing food	No	15	36.6%	21	35.6%	36	36%	0.010	0.92
	Yes	26	63.4%	38	64.4%	64	64%		

Table 5: Statistically Significant showing the knowledge of harmful effects of use of tobacco products on oral cavity in parents.

About 86% of parent population knew about the prohibition of smoking in public places, 86% were aware of prohibition of sale of products within 100 yards of all educational institutions, 83% new about the prohibition of sale of tobacco products to and by minors, 83% were aware of mandatory display of pictorial health warnings on tobacco product packages, 70% knew about the testing of

all tobacco for tar and nicotine content, 80% of parents knew the penalty for violation of COTPA law, 53% knew about the amount of violation. 20% knew about the penalty of 5000. 25% knew about fine and imprisonment. 89% of children knew about antitobacco messages, 4% did not know, 7% of children were totally unaware of the anti-tobacco messages (Table 6).

	Responses	Males [n=41]		Females [n=59]		Total [N=100]		c ² Value	P-Value
		N	%	n	%	n	%		
Awareness of COTPA Law - 2003									
Prohibition of Smoking in Public places	Yes	34	82.90%	52	88.10%	86	86%	0.545	0.46
	No	7	17.10%	7	11.90%	14	14%		
Prohibition of sale of tobacco products within 100 yards of all Edu. institutions	Yes	35	85.40%	51	86.40%	86	86%	0.023	0.88
	No	6	14.60%	8	13.60%	14	14%		
Prohibition of sale of Tobacco. products to and by minors	Yes	33	80.50%	50	84.70%	83	83%	0.311	0.58
	No	8	19.50%	9	15.30%	17	17%		
Mandatory display of pictorial health warning on Tobacco product packages	Yes	35	85.40%	48	81.40%	83	83%	0.276	0.6
	No	6	14.60%	11	18.60%	17	17%		
Testing of all Tobacco products for tar & nicotine content	Yes	28	68.30%	42	71.20%	70	70%	0.096	0.76
	No	13	31.70%	17	28.80%	30	30%		
Penalty for Violation of COTPA law	Yes	31	75.60%	49	83.10%	80	80%	0.837	0.36
	No	10	24.40%	10	16.90%	20	20%		
Penalty amount for violation of COTPA law	Rs. 200	17	54.80%	25	51.00%	42	53%	2.026	0.57
	Rs. 5000	5	16.10%	11	22.40%	16	20%		
	Fine + Imprisonment	9	29.00%	11	22.40%	20	25%		
Your Children are aware of Anti-tobacco messages	Yes	36	87.80%	53	89.80%	89	89%	1.189	0.55
	No	1	2.40%	3	5.10%	4	4%		
	Don't Know	4	9.80%	3	5.10%	7	7%		

Table 6: showing the knowledge about the awareness of COTPA law and antitobacco messages in parents.

In the present study about 89% were aware of the anti-tobacco messages and Television is a medium of anti-tobacco messages known to the parents by 87% where anti-tobacco messages were noticed in the past 30 days, 79% agreed that there are less anti-tobacco messages in the billboards and posters, 85% of parents agree that passive smoking is dangerous, 3% claim that it is not dangerous and 12% were unaware about it (Table 7).

In the present study 96% of the overall parent population agree that peer pressure plays an important role in the adolescent age to acquire such habit. 75% parents agree that adolescents acquire habits to be accepted among friends. 28% of parents opt for fear of rejection, 28% opt for socially anxious, 25% opt for to look mature (Table 8).

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	n	%	N	%		
Noticed Anti-Tobacco Messages in Past 30 Days									
Newspaper/Magazines	No	28	68.3%	36	61.0%	64	64%	0.556	0.46
	Yes	13	31.7%	23	39.0%	36	36%		
Television	No	5	12.2%	8	13.6%	13	13%	0.040	0.84
	Yes	36	87.8%	51	86.4%	87	87%		
Billboards/Posters	No	34	82.9%	45	76.3%	79	79%	0.646	0.42
	Yes	7	17.1%	14	23.7%	21	21%		
Mobile/Internet	No	25	61.0%	38	64.4%	63	63%	0.122	0.73
	Yes	16	39.0%	21	35.6%	37	37%		

Table 7: showing various media in which antitobacco messages were noticed in past 30 days.

Questions	Responses	Males [n=41]		Females [n=59]		Total [N=100]		χ ² Value	P-Value
		N	%	N	%	N	%		
Reasons for acquiring Tobacco habits through Peer Influence									
To be accepted among friends	No	7	17.1%	18	30.5%	25	25%	2.329	0.13
	Yes	34	82.9%	41	69.5%	75	75%		
Fear of Rejection	No	29	70.7%	43	72.9%	72	72%	0.055	0.81
	Yes	12	29.3%	16	27.1%	28	28%		
Socially anxious	No	29	70.7%	43	72.9%	72	72%	0.055	0.81
	Yes	12	29.3%	16	27.1%	28	28%		
To look mature	No	30	73.2%	45	76.3%	75	75%	0.124	0.73
	Yes	11	26.8%	14	23.7%	25	25%		
Peer influence play an Imp. role in acquiring tobacco habits	Yes	41	100.0%	55	93.2%	96	96%	2.895	0.09
	No	0	0.0%	4	6.8%	4	4%		

Table 8: showing influence of peer pressure.

Discussion

Since 600 A.D humans are using tobacco which was introduced in India by the Portuguese [10,11]. Many studies have been done on tobacco products on different aspects on different populations. 60 chemicals found in tobacco is known to cause cancer [12].

Tobacco kills nearly six million people worldwide annually. According to the Global Youth Tobacco Survey (GYTS) conducted among 24,000 students aged 13–15 years in 2009, 14.6% of students were tobacco users in India, with a large use of a variety of smoking and smokeless tobacco products [13]. In our study the most common smoking product known to the parent population is cigarette by 98% and non smoking product is pan masala (91%), in contrast a study showed beedi (96%) and gutkah (92%) respectively [14].

In the present study among the various health hazards cancer was the most common health hazard known to parent population by 84%, followed by lung and heart diseases by 81%, kidney diseases by 42% and impact on mental illness was only 40%.

Second-hand tobacco smoke (SHS) kills 600,000 people every year. SHS is three- to four-times more toxic than mainstream tobacco smoke. There is conclusive evidence linking passive smoking to an increased risk of cardiovascular diseases, lung and other cancers, asthma and other respiratory diseases in adults, ear infection and sudden infant death syndrome in children [15]. The use of smokeless tobacco causes reproductive and developmental toxicity, and its use in pregnancy increases the risks for preeclampsia and premature birth [16].

In our study the risks of passive smoking of tobacco, cancer is the most common risk know to the parent population by 81%, followed by lung diseases 76%. Whereas effect on premature babies was know by 50%. The effect of passive smoking on children were least known by 49%.

Research evidence in humans show that tobacco smoking causes cancer of various parts of the body among which 90% of lung cancers in men and 80% in women. Chronic obstructive pulmonary disease and cardiovascular diseases Studies on smoking, case–control studies in India demonstrate a strong association of smoking with cancers at various sites, such as oral cavity, pharynx, larynx, esophagus, lung and stomach and almost all studies show significant trends with duration of smoking and number smoked. In Mumbai a cohort study found that the incidence of oral cancers was 42% higher among beedi smokers as compared with cigarette smoker. Smokeless tobacco use was associated with cancers of the lip, oral cavity, pharynx, digestive, respiratory and intra thoracic organs. A study in North India showed a significant association of chewing tobacco and oral cancer with direct relation between quantity and duration of use. India has one of the highest rates of oral cancer in the world, with over 50% attributable to smokeless tobacco use [17].

There is sufficient evidence in humans for the carcinogenicity of smokeless tobacco and cancers of oral cavity, esophagus and pancreas [18,19].

In the present study among the harmful effects of using tobacco in the mouth, a non-healing lump in the mouth was know to about 69%, 64% of parents knew about the white patch in the mouth.

44% of parents knew about the tightening of inner cheeks and about 64% knew about the difficulty in swallowing food.

COTPA is an Act of Parliament enacted in 2003 to prohibit advertisement of and to provide for regulation of trade and commerce in the production of tobacco. The Committee declared that the Parliament could legislate on tobacco products other than cigarettes and that the Bill should apply to the whole of India. It made pictorial depictions of health warnings mandatory and required nicotine and tar contents and their maximum permissible limits to be printed on cartons and packages of all tobacco products. Sale of tobacco products must be banned within 500 yards (457.2 m) of educational institutions. The Committee also recommended that special smoking areas be provided in hotels, restaurants and airports and that penalties for noncompliant producers, dealers, and sellers of tobacco products be standardized across the country. The Central Cabinet further proposed a ban on tobacco products within 100 yards (not 500 yards) (91.44 m) of educational institutions [20,21].

In the present study 86% Parent population know about the prohibition of smoking in public places, 86% were aware of prohibition of sale of products within 100 yards of all educational institutions, 83% new about the prohibition of sale of tobacco products to and by minors, 83% were aware of mandatory display of pictorial health warnings on tobacco product packages, 70% knew about the testing of all tobacco for tar and nicotine content., 80% of parents knew the penalty for violation of COTPA law, 53% knew about the amount of violation.

Children are impacted not only by school they are influenced by the environment. They are subjected to almost all the influences similarly as adults. They see posters, read or look at adults' magazines and newspapers and watch television. Research evidence indicates children's awareness of cigarette advertising and that they see it in their parents' reading material, cigarette advertising from magazines with a large proportion [22,23].

In the present study about 89% were aware of the anti-tobacco messages and television is a medium of anti-tobacco messages known to the parents by 87% where anti-tobacco messages were noticed in the past 30 days, 79% agreed that there are less anti-tobacco messages in the billboards and posters, 85% of parents agree that passive smoking is dangerous, 3% claim that it is not dangerous and 12% were unaware about it.

The smoking influences can be described as belonging to the child's micro- and macro-environment. The micro-elements are close to the child, personality and self, family, relatives and friends.

The macro-factors include availability of cigarettes, portrayal of smoking in films, magazines and literature on tobacco. Taking the micro-environment first, children's primary socialisation takes place in their home with parents and family Parents' opinion, as perceived by the child, is even more influential [24].

It is less surprising when the next strong influence on children is which comes from peers. Many studies have shown that friends are very important; it is vital to a child to be one of the crowd and not to appear feeble and wimpish. Reference Smokers' best friends tend to be smokers [25]. In the present study 96% of the overall parent population agree that peer pressure plays an important role in the adolescent age to acquire such habit. 75% parents agree that adolescents acquire habits through peer pressure to be accepted among friends. 28% of parents opt for fear of rejection, 28% opt for socially anxious, 25% opt for to look mature.

A study reported that around the onset of puberty, peer social reinforcement becomes a powerful socializing influence [26]. Intervention should start prior to teenage before they could form their opinion and start consuming tobacco [26].

The emotional factors which may help children to pick up these habits are often rebellious, risk-takers, low or under-achievers academically, disenchanted with school and have relatively low self-esteem [26]. In the present study 61% of parents agree that lack of proper parental care is the most common emotional cause for children to pick up these habits. Hence 51% of the parent population agree that children with anxiety and depression may pick up these habits. 44% of them agree for that children with low esteem. 31% opt for children with low aspiration of success or school dropouts.

Among the steps to help victimized children to quit tobacco habits 39% of parents agree for early detection, 47% of moral, social and psychological support, 73% for inculcating strong principles, 25% for de-addiction centres, 7% of parents are not sure of strict implementation of COTPA law. 16% agree for strict implementation of COTPA law, 77% of parents strongly agree for strict implementation of COTPA law in India.

Conclusion

Knowledge and attitude of parents is essential to educate and motivate adolescents as it is easier to break bad habits than to break them. The conclusion of this study is to increase the availability of training and learning materials to parents as it in turn creates an awareness among adolescents. As little knowledge removes a lot of ignorance. They need to be educated regarding the hazards of tobacco use and COTPA law as parents agree for strict implementa-

tion of the law in India. The best way to stop a habit is not to begin, because habits are easier to abandon today than tomorrow. As a Pedodontist impress the maturing minds at the right time with right knowledge and right attitude to make a right citizens.

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