

## Effect of Indirect Tobacco Advertisement and Promotion Activities in Bangladesh

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### ABSTRACT

Different forms of indirect tobacco advertisement and promotional activities are the burden of tobacco epidemic in Bangladesh. A descriptive type of cross-sectional study was carried out on a total of 404 adults, randomly selected from urban (206) and rural (198) areas. Data were collected implementing both qualitative and quantitative methods from July to September 2013 and found 52% of the respondents were smoking cigarette or bidi, within them only 30% of the male adults were never user of tobacco of any kind. The respondents mainly noticed packet wall (52%), posters (65%), and big size packets (38%) as indirect advertisement as well as free sample (51%) and free gifts (43%) as promotional activities. A significant effect was identified of the activities on increasing consumption which tobacco control advocates and practitioners always argue. Existing laws do not allow giving free samples and free gift to persons, it should be enforced adequately as well as all tobacco control activists should be vigilant on unlawful activities of tobacco traders.

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## 1. INTRODUCTION

According to Section 2(b) "Tobacco" means any *Nicotima Tobacum* or *Nicotima Bustica* plant or any other related plant or its leaf or crop [1]; and of Article 1(c) "Tobacco Advertising and Promotion" means any form of commercial communication, recommendation or action with the aim, effect or likely effect of promoting a tobacco product or tobacco use either directly or indirectly [2]. Article 1(f) "Tobacco Products" means products entirely or partly made of the leaf tobacco as raw material which are manufactured to be used for smoking, sucking, chewing or snuffing [2]; and also Section 2(c) stated that "Tobacco Products" means any product made from tobacco which can be inhaled through smoking and shall include bidi, cigarette, cheroot, cigar and mixtures used in pipe [1]. But tobacco products, especially cigarettes are among the most marketed products in the world [2]. In Article 1(e) "Tobacco Industry" means tobacco manufacturers, wholesale distributors and importers of tobacco products [2]. The tobacco industry spends billions of dollar each year to market its products. In places where advertising is permitted, the largest single expenditure by tobacco companies is devoted to advertising and promotion [2]. The industry uses a mix of tobacco advertising, promotion, and sponsor tactics to directly influence tobacco use and attitudes related to tobacco [3]. The tobacco industry maintains that the role of advertising is to encourage smokers to switch brands. Branding is used to discourage smokers from quitting, to encourage new smokers, and to undermine restrictions on tobacco marketing [4]. However, industry documents have shown that advertising causes characteristics such as independence, glamour and machismo to be associated with smoking [5].

Advertising increases tobacco consumption [6], young people are particularly vulnerable to it and are the main target of brand stretching [7]-[11]. Tobacco advertising is also used to target women. Advertising glamorizes tobacco use and makes it socially acceptable [4]. About half of the world's children live in countries that allow the free distribution of tobacco products [12]. Tobacco use is among the leading preventable causes of death. Each year, the global tobacco epidemic kills nearly million people, including more than 600,000 who die from exposure to second-hand smoke [6]. It is on track to kill more than 8 million by 2030, by which time approximately 80% of the deaths would occur in low and middle-income countries [13]. One of the main behavioural health risks for a host of chronic illness is the use of tobacco and related products. According to the World Health Organization report on the Global Tobacco Epidemic 2008, nearly two-thirds of the world's smokers live in 10 countries including Bangladesh. Some 35% of men in developed countries and 50% of men in developing countries are daily smokers. Tobacco-use is a widespread phenomenon in Bangladesh. The Government has taken steps towards discouraging smoking through signing the Framework Convention on Tobacco Control, thus, restricting advertising and smoking in public places [14]. In December 1998, Tobacco Free Initiative (TFI) convened a meeting in Geneva with the Centers for Disease Control and Prevention (CDC), the United Nations Children's Fund (UNICEF), the World Bank (WB) and representatives from countries in each of the six WHO regions to discuss the need for standardized mechanisms to collect youth tobacco use information on a global basis [15]. Among other measures to reduce the burden of the tobacco epidemic, the convention requires countries to protect their citizens from exposure to tobacco smoke. Bangladesh was an early signatory to the Convention in 2004. The United States signed the agreement in 2004, but the action has not yet been ratified. Many countries have adopted partial bans covering direct advertising in traditional media channels; however, few countries have adopted comprehensive bans on all types of direct and indirect marketing [16]. The mission of the International Union against Tuberculosis and Lung Disease (The Union) is to bring innovation, expertise, solutions and support to address health challenges in low- and middle-income populations [18].

The Union has been working on tobacco control in Bangladesh since 2007 under the Bloomberg Initiative to Reduce Tobacco Use. Globally, the Department of Tobacco Control, been working to advance tobacco control in low- and middle-income countries for more than 25 years, with a focus on supporting effective tobacco control programmers though grants and promoting effective tobacco control through training, resources and research [18]. The use of direct tobacco advertising is being restricted or prohibited in a growing number of countries [19]. This has led to an increase in the use of indirect advertising that includes sponsorship [Article 1(g) "tobacco sponsorship" means any form of contribution to any event, activity or individual with the aim, effect or likely effect of promoting a tobacco product or tobacco use either directly or indirectly [2] of sports, cultural and music events, image and logo advertising, merchandising, manipulating pack designs, and product placement in television shows and films [19]. WHO declares a comprehensive ban on all advertising, promotion, and sponsorship protects people from industry marketing tactics and could decrease tobacco consumption by about 7% and partial bans have little or no effect [20]. On the face of different restrictions, the tobacco industry frequently changes and adopts new approach for promotion of their tobacco products.

In these regard there is no or scanty study has been found on the tobacco control issues in Khulna areas. The study had been carried out to know the effect of indirect tobacco advertisement and promotional activities as well as to know the form of those activities by the companies in different rural and urban areas in Khulna of Bangladesh.

## 2. RESEARCH METHOD

Mixed method was applied for data collection. A descriptive type of cross-sectional study was carried out in both urban and rural areas of Khulna district of Bangladesh as the area consists of 9 Upazilas (Batiaghata, Dacope, Dumuria, Dighalia, Koyra, Paikgachha, Phultala, Rupsha, and Terokhada) and 5 Thana (Khalishpur, Khan Jahan Ali, Kotwali, Daulatpur and Sonadanga). Batiaghata Upazila and Kotwali (Sadar) Thana were selected randomly from Khulna district for the study. Markets were listed up to make a frame. Probability Proportional to Size (PPS) sampling technique was adopted for the selection of 3 markets from each area. Adult male member of the household of surrounding area to the market responded for the survey irrespective of smoking. Of 404 households, 206 and 198 households were surveyed from urban and rural areas respectively following systematic sampling procedure with random start.

Qualitative method includes Focus Group Discussion (number of focus group was 10 including tobacco promotional workers, point of sale owner, university students, farmers, etc). The research was mainly based on the results of questionnaire survey whereas results from FGD were used to supplement the survey results.

### 3. RESULTS AND ANALYSIS

Results obtained from the survey were shown through overall situation as well as comparative analysis between urban and rural area's respondents, and smoker and non-smokers.

#### 3.1. Socio-economic condition

At this section socio-economic characteristics were presented with behaviour related to tobacco use and observing advertisement and promotional activities of those products. Overall 80% of the respondents were found of age between 25 to 64 years (48% was from 25 to 44 ages) in table 1. About 15% of the respondents were between 15 to 24 years of age. Only 8% of the respondents were of above 65 years old. Use of tobacco and its types were observed highly significantly associated on both age and education but noticing advertisement of tobacco was observed independent of those. Noticing promotional activities was independent of age but associated with education significantly. About 75% and 45% of the respondents had at least primary and secondary education, respectively. About 16% of the respondents found illiterate having no formal education. More respondents in non-smokers category (58%) had secondary education compared to smoker's category (36%). Tobacco use was more prevalent among persons with no formal education (62.9%) and in the lowest quintiles of socio-economic status (SES: 55.6%) [17]. On an average 12,600 BDT/month was the respondent's family income. That is, the average income of the urban area respondent was about 17,500 BDT/month where in rural areas was about 10,000 BDT/month. Average monthly income of the smokers category was 12,000 BDT as well as non-smoker's 14,400 BDT. The income of the respondent was mainly depends on business (45%) of different kind, agriculture (16%) and employment (14%). A good number of them were student in present situation. The estimated number of current adult tobacco smokers is 21.9 million (males: 21.2 and females: 0.7) [17], [21]. It is estimated that total expenditure on cigarettes is 1.0% of gross domestic product (GDP) and on bidis is 0.4% of GDP in Bangladesh. The price of 100 packs of manufactured cigarettes as a percentage of per capita GDP is 5% and the price of 100 packs of bidis as a percentage of per capita GDP is 1% [17]. Types of tobacco using were observed independent with income but other three variable showed in table 1 were significantly associated with income of the respondent.

Table 1. Socio-economic characteristics with behaviour related to tobacco use and other activities

	Using tobacco			Types of tobacco using			Noticed advertisement		Noticed promotional activities	
	Yes	No, but previously using	No, never	Smoked	Smokeless	Both	Yes	No	Yes	No
<b>Age</b>										
15-24	32	4	26	32	0	4	56	6	38	24
25-44	129	6	58	100	18	17	170	23	129	64
45-64	75	9	34	46	19	19	93	25	65	53
65+	18	9	4	15	6	6	25	6	20	11
Total	254	28	122	193	43	46	344	60	252	152
P-value*		0.000			0.003		0.076		0.221	
<b>Education</b>										
No formal education	51	4	7	26	10	19	55	7	42	20
< primary	31	4	6	20	9	6	38	3	33	8
Primary	35	3	3	31	5	2	39	2	26	15
< secondary	50	5	23	37	7	11	65	13	55	23
≥ secondary	87	12	83	79	12	8	147	35	96	86
Total	254	28	122	193	43	46	344	60	252	152
P-value*		0.000			0.000		0.07		0.003	
<b>Income</b>										
< 5000	16	2	7	9	6	3	20	5	16	9
5000 - 10000	124	13	35	87	20	30	158	14	128	44
10000 - 15000	46	6	25	39	8	5	68	9	50	27
15000 - 20000	21	3	14	18	3	3	33	5	17	21
≥ 20000	20	1	20	17	1	3	30	11	20	21
Total	227	25	101	170	38	44	309	44	231	122
P-value*		0.035			0.162		0.017		0.001	

\*([Highly Significant]  $p \leq 0.01$ ; [Significant]  $p \leq 0.05$ ; [Insignificant]  $p \geq 0.05$ )

### 3.2. Tobacco use

Table 2 shows that total 48% of the respondents were in habit of only smoking while 11% were in habit of using both smoked and smokeless tobacco. Another 11% were found to use only smokeless tobacco. Altogether 59% were in habit of smoking currently or previously. About 7% of the respondents had given up using tobacco at that time. Similar result was found that smoking cessation rates are relatively low in Bangladesh [21]. AID [17] and GATS [22] also shows that nearly 70% of current smokers plan or are thinking about quitting. About 52% respondents were smoking tobacco and about 30% of the respondents were never user of any kind tobacco. Use of tobacco and its types were observed highly significantly associated with areas. The survey found that 23.0% of adult aged 15 years or above currently smoke tobacco in Bangladesh (males: 44.7% and females: 1.5%) [17]. About 53% and 73% respondents were in habit of using tobacco from the urban and the rural areas, respectively i.e., 63% of the respondents were using tobacco. From GATS survey, the smoking rate in rural and urban areas is 23.6% and 21.3%, respectively [17]. On the contrary, about 40% (urban) and 20% (rural) respondents had never been used tobacco. GATS shows current tobacco use (smoking or smokeless) among adults is 43.3% but the proportion is higher in male (58.0%). More than 50% of men (n=13,584), compared to 1% of women (n=25,454), reported smoking at the time of interview [17]. The prevalence of current smoking peaked at the end of the 4th decade and beginning of the 5th decade. The use of smokeless tobacco among women was higher compared to men (28% vs 21%) [14]. Male sex of current tobacco smoke, 68.4%, 15.2%, and 16.3% were smoked tobacco, smokeless tobacco, and both smokeless and smoking tobacco, respectively. The percentage of current male user showed 54.6, 23.0, and 22.4 of smoked tobacco only, smokeless tobacco mainly, and both smokeless and smoking tobacco, respectively [17] is lower rate in smoking tobacco group from the present findings. Overall 27.2% of the adult population currently use smokeless tobacco and is more prevalent in rural areas (28.8%) compared to urban areas (22.5%) [17]. A comprehensive ban on all advertising and promotion reduces tobacco consumption by about 7%, independent of other interventions. Some countries have seen consumption drop by as much as 16% [23]. Of 29% and 70% initiated their smoking before 15 and 20 years of age, respectively; among them 90% were regular and 6% were occasional smokers. According to GATS, 44.77% of male aged 15 years or above initiating smoking [17] is lower than that of present result. More than half of the Bangladeshi men over the age of 25 years smoke cigarettes, bidis, or small handmade cigarettes [21] and this are almost similar to present study. More people from rural areas (39%) had initiated smoking before 16 years compared to urban areas (22%). They smoke mainly cigarette and bidi are comparable of 82% and 17%, respectively. About 47% of urban smokers smoke at least 10 cigarettes/day in present observation, where GATS found the average number of cigarettes smoked/day is five [17].

Table 2. Comparison of different characteristics with living areas and types of tobacco using

		Using tobacco			Types of tobacco using			
		Yes	No, but previously I was using	No, Never	Total	Smoked	Smokeless	Both
Study area	Urban	110	11	85	206	98	18	5
	Rural	144	17	37	198	95	25	41
	Total	254	28	122	404	193	43	46
P-value*		0.000				0.000		

\*([Highly Significant]  $p \leq 0.01$ ; [Significant]  $p \leq 0.05$ ; [Insignificant]  $p \geq 0.05$ )

Table 3 shows that age of smoking initiation is independent of both area and types of tobacco using, but noticed advertisement and promotional activities is highly significantly associated with those variables separately. Table 3 also shows that indirect advertisement and promotional activities increase smoking is significantly associated with area and types of tobacco using.

Table 3. Comparison of different characteristics with living areas and types of tobacco using

	Study area		Types of tobacco using		
	Urban	Rural	Smoked	Smokeless	Both
<b>Age of smoking initiation</b>					
less than 15	28	40	51	-	17
15-16	17	38	50	-	5
17-19	24	22	38	-	8
20+	34	36	54	-	16
Total	103	136	193	-	46
P-value*	0.120		0.240		
<b>Noticed any cigarette advertisement</b>					
Yes	164	180	176	31	42
No	42	18	17	12	4
Total	206	198	193	43	46
P-value*	0.001		0.002		
<b>Noticed any cigarette promotional activities</b>					
Yes	101	151	147	19	36
No	105	47	46	24	10
Total	206	198	193	43	46
P-value*	0.000		0.000		
<b>Has influence on teenagers (both boys &amp; girls) to initiate smoking</b>					
Yes, I think so	173	178	164	38	42
It may have little impact	12	8	10	4	2
No I don't think	21	12	19	1	2
Total	206	198	193	43	46
P-value*	0.205		0.308		
<b>Indirect advertisement &amp; promotional activities increase smoking</b>					
Yes, I think so	158	171	156	30	43
No, I don't think	37	20	31	7	2
I have no idea	11	7	6	6	1
Total	206	198	193	43	46
P-value*	0.042		0.005		

\*([Highly Significant]  $p \leq 0.01$ ; [Significant]  $p \leq 0.05$ ; [Insignificant]  $p \geq 0.05$ )

One of the focus groups consists of twelve university students of Khulna age from 22 to 25 participated to a discussion on the same issues. Around two-fifth of the participants were habituated in smoking. They started smoking from 17 to 20 years of age. On an average they smoke 10 cigarettes per day. Along with the students, discussion was continued with some other groups like farmer, tobacco seller, rickshaw/van puller, day labor, etc. Another focus group of ten tobacco seller of Jolma bazar under Batiaghata Upazila of Khulna age from 28 to 55 participated for another discussion. Around half of the participants were smoker. Those who were smoker started from 19 years of age on average. On an average they smoke 10 cigarettes/day.

### 3.3. Tobacco use

The National Tobacco Control Cell (NTCC) of the Ministry of Health and Family Welfare (MoHFW) conducted a study in northern Naogaon district in collaboration with WHO to evaluate the extent of unlawful TAPS in that district. It was noted that advertisement of tobacco products through leaflets, posters and flyers at points of sale are common. Tobacco companies also offer gifts and prizes violating the law. Also the advertisements are mainly being observed at the point of sale and public walls [24]. In present study posters were mainly being used identified by 78% of the respondents as a part of advertisement in rural areas where packet wall (60%) was being used mainly as a part of advertisement in urban for marketing of their tobacco products. Little difference was observed in promotional activities between urban and rural areas. Free samples were being given mainly as promotional activities. Clothing items and coupons were also being used as a part of promotional activities in rural areas.

Smokers were observed more likely to noticed advertisement and promotion compared to non-smokers. The respondents from both categories had noticed posters (65%), packet wall (52%), and big size packets (38%) as the main methods of advertising of tobacco products and some on lighter (21%), fire box (17%), and symbol (10%). They had noticed point of sale (84%) and public walls (25%) as the main place for advertisement of tobacco products. GATS show that overall 38.4% adults (current smokers 56.1% and non-smokers 33.0%) noticed cigarettes marketing in stores where cigarettes are sold [17]. Few of them from both the categories had also noticed public transportation (9%) [Section 2(g) "Public Transport" means motor car, bus, train, tram, ship, launch, all kinds of mechanized public transport, aircraft and any other transport determined or declared by the Government by notification in the Official Gazette] [1] as one of the place of those activities. A negligible number of respondents had mentioned cinema (3%) and internet (1%) as a place

of advertisement activities in present observation. AID [22], in a baseline survey, shows that 32% of the public transport users do not know what is public place and public transport. Nearly half of the adult population (49.8%) noticed anti-smoking information, mostly on radio and television (40.5%). People in the highest SES (68.4%) were more exposed to anti-smoking information compared to the lowest SES (30.8%). Cigarette advertising, sponsorship or promotion was noticed by nearly half of the population (48.7%). Among smokers, 51.6% noticed health warnings on cigarette packages; 74.4% of them thought about quitting smoking because of those warnings [17]. Nearly 70% of current smokers were plan or thinking about quitting. Almost half of smokers (47.3%) made an attempt to quit in the last 12 months. Among those who visited a health-care facility, 56% were asked about their history of tobacco smoking and 52.9% were advised to quit smoking. Of those who attempted to quit during the past 12 months, 14.9% used counseling and 14.5% used other methods, which includes traditional medicines [17]. The promotional activities had mainly been noticed free samples (51%) and gifts (43%). Free samples as a part of promotional activities had mainly been noticed by the smokers. Some of the respondents had also noticed coupons (1%), clothing items with logo (2%), and discount on other goods (2%) as well.

### 3.4. Effect of advertisement and promotional activities

More than 80% of respondents thought that the indirect advertisement and promotional activities increases smoking and remaining no effects on smoking. After that the respondents were asked about the normalizing effects of advertisement on tobacco products. About 87% of the respondents thought activities influenced on teenagers to initiate smoking.

Table 4. Effect of advertisement and promotional activities

	Influence on teenagers to initiate			Increase smoking		
	Yes, I think so	It may have little impact	No I don't think	Yes, I think so	No, I don't think	I have no idea
<b>Noticed tobacco advertisement</b>						
Yes	302	14	28	289	47	8
No	49	6	5	40	10	10
Total	351	20	33	329	57	18
P-value*		0.146			0.000	
<b>Noticed tobacco promotional activities</b>						
Yes	219	12	21	216	33	3
No	132	8	12	113	24	15
Total	351	20	33	329	57	18
P-value*		0.965			0.000	

\*([Highly Significant]  $p \leq 0.01$ ; [Significant]  $p \leq 0.05$ ; [Insignificant]  $p \geq 0.05$ )

More respondent in rural areas compared to urban areas (urban: 84% and rural: 90%) thought advertisement and promotional activities influenced teenagers to initiate smoking. About 10% of the urban people and 6% of the rural people (overall: 8%) had the opposite opinion. Few of them mentioned children before teenage as well as women are also being enthralled in using tobacco products. The other effects identified by the respondents were to obtain new brands (urban: 44% and rural: 43%), help to get smoking tobacco products easily (urban: 20% and rural: 37%) as well as it had effect to normalize smoking tobacco products like other consumer products (urban: 24% and rural: 34%). About 80% of the respondents said that the advertisement and promotional activities should not be continued. Overall 10% of the respondents (urban: 7% and rural: 12%) think there was no problem to continue tobacco advertisement and promotional activities. Table 4 shows that noticed tobacco advertisement and promotional activities are insignificantly associated with influence on teenagers to initiate smoking separately but highly significantly associated with increase smoking.

## 4. CONCLUSION

More than half of adult male were observed smoker and a huge number of them had started smoking at teenage. People of rural areas had initiated smoking earlier compared to urban areas. Tobacco Company mainly used point of sale as the place for advertising and the respondents had noticed on poster followed by packet wall and big size packet as indirect advertisement. The promotional activities had mainly been noticed free samples of tobacco and gifts. Teenagers were getting interest and becoming smoker seeing and feeling the advertisement and promotional activities. Research can be done on the determining factors of becoming

smokers other than advertisement and promotional activities and how to minimize and discourage them from using tobacco products. More advanced studies are needed in depth on tobacco control issues in Khulna as well as in Bangladesh.

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**BIOGRAPHIES OF AUTHORS**

I, Qazi Azad-uz-zaman, received a research grant jointly from Bangladesh Center for Communication Program (BCCP) and Institute for Global Tobacco Control (IGTC) based on Johns Hopkins Bloomberg School of Public Health as MPH Student of Northern University Bangladesh in 2013. Prior to that my graduation in Statistics from the University of Dhaka was completed. Soon after I started doing research on environmental issues focusing on urban and rural livelihood. As a member of the Japan Association of Drainage and Environment, Bangladesh (JADE-B) I am implementing development activities and research to improve the living environment of urban slums of Khulna city as well as participating to national and international scientific conferences to presented research article.



I, Quazi Zahangir Hossain, am the Professor of Environmental Science Discipline, Khulna University as well as Adjunct Faculty, Department of Public Health, Northern University Bangladesh, Khulna Campus and a member of different learned bodies. Teaching and research have contributed to write books and about 30 research articles jointly with other researcher which has been published to different international and national journals. Currently supervising two PhD students. Recently become interested in health related issues and being involved in research and consultation.