Original Article

Study on Attitude and Practice of Tobacco Control Law/Policy by School Authority of Some Selected Educational Institutes in Dhaka City

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Background: Tobacco causes premature death and disease. It is on track to kill more than 8 million by 2030, about 80percent inlow- and middle-income countries, and smoking is responsible for 1 in 10 adult deaths.

Objectives: The study was conducted to find out the attitude and practice of tobacco control law/policy by school authority of Some Selected Educational Institutes in Dhaka City.

Methods and Materials: This study was carried out from February to November in 2014 in97 schools systematically selected where all points of sale were within a 100-yard from their main entrance. Data were collected from May to June 2014 with pretested structured questionnaire and interview checklist. All points of sale within a 100-yard from main entrance of schools were observed for type of product sold and advertisement with checklist.

Results: Presence of tobacco point of sale within 100 yards of school was near about cent percent within the study area. General stores selling tobacco products were the common type of point of sale at more than half of the observation spots. In about two-third spots there was POS tobacco advertising. Packet arranged within glass box was the most common form in more than half spots. Almost all spots sold cigarettes and more than half spots sold Zarda. Among the 210 spots of examination, sale to minor was observed at 24.8 % sites and sale by minor was observed at 17.0 percent sites. It was found from this study that smoking was not allowed in 94.8% schools. Only 13.4 percent respondents took action to prevent tobacco POS near school.

Conclusion: Tobacco control practice is not yet up to standard recommendation. Implementation of promotive program should be targeted to school personnel, community leaders to alleviate the avertable risk factors for youngsters' smoking initiation.

Keywords: Attitude, Policy, POS, Practice, School authority, Tobacco control.

Introduction

Abstract -

Tobacco causes premature death and disease. Tobacco use is among the leading preventable causes of death. Each year, the global tobacco epidemic kills nearly 6 million people. It is on track to kill more than 8 million by 2030, by which time approximately 80percent of the deaths would occur in low- and middle-income countries and smoking is responsible for 1 in 10 adult deaths.^{1,2} A disproportionate share of the global tobacco burden falls on developing countries, where an estimated 84 percent of the world's 1.3 billion current smokers live.³ Up till now, very little is known about the pattern and prevalence of smoking in general and specifically among the young adults, who are the target of the ever expanding tobacco market. In developed countries, most smokers start at a younger age; almost 80 percent initiate their smoking at teens.⁴

In Bangladesh, 18th and 4th highest tobacco producer in the world and South East Asia respectively, 43.3 percent people (15 years and above) use tobacco in either smoking or other forms (GTSS, 2009). WHO study (2004) suggests that tobacco use is liable for 57,000 deaths and 382,000 disabilities in

Bangladesh. To reduce the continuously growing concern on tobacco use and health disaster, Government of Bangladesh (GoB) imposed ban on public smoking, cigarette advertising, and public display of tobacco products. But the market responds in the opposite way; cigarette sales increase along with the rate of smoking over time. Since the last couple of years tobacco industry has been facing lots of obstacles in doing business around the globe including Bangladesh. But the players in the industry did not sit idle, rather they have modified the situation in their favor and some companies set their selling target highest ever in Bangladesh.⁵

Public place includes educational institutes but tobacco point of sale near this type of structure is not still banned. The students are influenced by observing the sale and advertisements from a close distance. Objective studies on violation of TAPS ban in Bangladesh are limited. Sometimes news covers punishment of the violators of the chapter 5(1) of the Smoking and Tobacco Products Usage (Control) (Amendment) Act, 2013 and send the message across that a stringent tobacco control law was in place. Implementation or enforcement of this law cannot reach up to the mark due to lack of Necessary manpower and technologies to monitor and implement the law.⁶ The utilization of strengths and to overcome the shortcomings of present law can be achieved by awareness raising, educating people about law and finally through proper monitoring.

Materials and Methods

The study was conducted to find out the attitude and practice of tobacco control law/policy by school authority of Some

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Selected Educational Institutes in Dhaka City. This work was a cross-sectional study. The study was conducted from February to November 2014. For this study Dhaka city was divided into four areas according to the socio-economic condition were-Area 1, Area 2, Area 3, Area 4. From each area equal numbers of government and non-government schools were selected purposively. A total 97 schools were systematically selected where all points of sale were within a 100-yard from their main entrance. Three sites (in front, right side, left side) for each school were considered as a "spot" for observation. A total of 218 spots were observed for tobacco point of sale.A person of school authority from each selected school was considered to be target/ study population for our studyfollowing certain inclusion and exclusion criteria. Inclusion criteria: a. Representative of school authority, irrespective of gender. b. Sales point must be a vendor of tobacco product (either smoked and/or both), either as shop or street hawkers. Exclusion criteria: Involuntary participation Research instrument: The study consisted of two parts, observational information and an interviewer administered questionnaire. A questionnaire was used to capture information from school authority about recent changes in tobacco control law about sale, advertisement and promotion of tobacco around school premises.

Maintaining data quality: To maintain data quality the supervisor visited along with the data collectors. Researcher made surprise visits to monitor data collection. BCCP official visited the study area and supervised data collection in two out of three study locations and given their feed on the quality of the information collected for this study. Statistical analysis:Data were analyzed using appropriate software. Comparative analysis had been done primarily with descriptive statistics. Cross-tabulation and chi-square test had been performed as a part of data analysis.

Results

A. Socio-demographic characteristics of the respondents Table 1: Socio-demographic characteristics of the respondents

| Characteristics | Frequency | Percent | Mean ± SD |
|---|----------------------|------------------------------|-----------------------|
| Age of the respondent (yrs) 2635 3645 4655 5665 | 19 34 26 18 | 19.6 35.1 26.8 18.6 | 45.4 ± 9.0 (years) |
| Gender of the respondent Male Female | 66 31 | 68.0 32.0 | |

| Level of education | | | |
|--|----------------------|------------------------------|-----------------------|
| Honors graduate Honors + B. Ed Masters Graduates Masters +M. Ed | 7 13 42 35 | 7.2 13.4 43.3 36.1 | |
| Designation of the respondent Headmaster or Principal Assistant Headmaster or Vice Principal Assistant teacher | 55 29 13 | 56.7 29.9 13.4 | |
| Duration of working (years) 1-5 6-10 1+15 >15 | 37 24 15 21 | 38.1 24.7 15.5 21.6 | 10.1 ± 7.7 (years) |
| Smoking habit of the respondents Never Regular smoker Past smoker Occasional smoker | 75 5 9 8 | 77.3 5.2 9.3 8.2 | |

B. Respondents' knowledge of current tobacco control laws

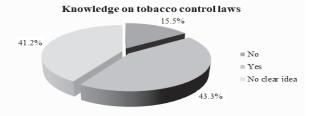


Figure 1 Among the respondents 43.3 percent said that they had knowledge and 41.2 percent said that they have no clear idea about the current tobacco control laws.

 Table 2: Awareness about responsibility as a public place authority

| Responsibility as a public place authority | N | Percent |
|---|-----|---------|
| No definite responsibility | 10 | 7.6 |
| Display 'No smoking' sign | 18 | 13.6 |
| Enforcement of anti-tobacco policy | 25 | 18.9 |
| Punishment for violators | 29 | 21.9 |
| Communicating the policy to others | 16 | 12.1 |
| Awareness raising in public about tobacco control law | 22 | 16.7 |
| Aware people about the harmful effects of tobacco | 12 | 9.09 |
| Total | 132 | 100.0 |

| C. Noticing tobacco | point | of sal | e and | tobacco | advertisement |
|---------------------|-------|--------|-------|---------|---------------|
| at study area | | | | | |

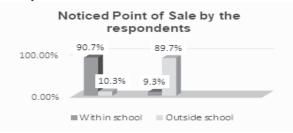


Figure 2 Tobacco POS was noticed outside the school by 89.7 percent schools respondents and within the school premises.

Table 3: Noticing tobacco advertisement by respondents within study area

| | Noticed any tobacco products advertisement in this areas | | | Total | Percent | |
|------------------------------|---|-------|----|-------|---------|-------|
| Presence of advertisement | N | ło | Y | es | | |
| auvertisement | Ν | % | Ν | % | | |
| No | 17 | 17.52 | 2 | 2.06 | 19 | 19.6 |
| Yes | 60 | 61.86 | 18 | 18.56 | 78 | 80.4 |
| Total | 77 | 79.38 | 20 | 20.62 | 97 | 100.0 |

Table 4: Place of noticing tobacco advertisement byrespondents within study area

| Place of noticing tobacco | Frequency | Percentage |
|---------------------------|-----------|------------|
| advertisement | | |
| Sale point | 19 | 19.39 |
| Scho ol walls | 2 | 2.04 |
| Not noticed | 77 | 78.57 |
| Total | 21* | 100.0 |

*multiple responses

Table 5: Type of tobacco advertisement noticed byrespondents within study area

| Type of tobacco ad | Frequency | Percentage |
|--------------------|-----------|------------|
| noticed | | |
| Packet wall | 15 | 44.1 |
| Posters | 9 | 26.5 |
| Symbol | 2 | 5.9 |
| Big size packet | 6 | 17.6 |
| On match box | 1 | 2.9 |
| On lighter | 1 | 2.9 |
| Total | 34* | 100.0 |

Table 5 Among them 44.1 percent have noticed packet wall and 26.5 percent have noticed poster.

D. Observation of Tobacco Sale to and by minors

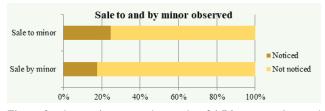


Figure 3 sale to minor was observed at 24.76 percent sites and sale by minor was observed at 17.0 percent sites.

Knowledge on tobacco sale to and by minors

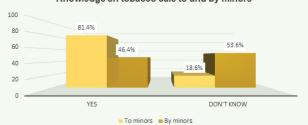


Figure 4 Majority of the respondents knew that tobacco sale is banned to minors 81.4 percent and about half knew about banning sale by minors 46.4 percent.

E. Opinion about influence of presence of tobacco point of sale Table 6: Opinion about influence of tobacco point of sale on students

| POS influence | Frequency | Percent |
|-------------------|-----------|---------|
| students to smoke | | |
| No | 5 | 5.2 |
| Yes | 78 | 80.4 |
| May be | 12 | 12.4 |
| Don't know | 2 | 2.1 |
| Total | 97 | 100.0 |

F. Activities observed against tobacco control in that area

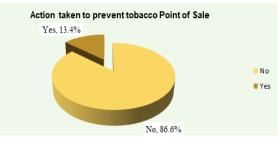


Figure 5 shows Distribution of respondents by action taken to prevent tobacco POS near school. Only 13.4 percent respondents took action to prevent tobacco POS near school.

Table 7: Type of action taken to prevent tobacco point of sale

| Type of action taken | Number | Percentage |
|--|--------|------------|
| | | |
| Discussing with tobacco vendors | 5 | 35.7 |
| Discussing in school committee meeting | 3 | 21.4 |
| Discussing with local people | 1 | 7.1 |
| Complaining to local police | 2 | 14.3 |
| Complaining to local authority | 2 | 14.3 |
| Others | 1 | 7.1 |
| Total | 14* | 100.0 |

*multiple responses

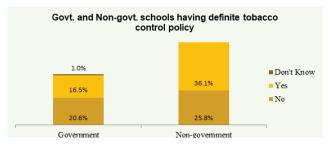


Figure 6 shows distribution of schools by presence of definite tobacco control policy within the school. About 52.6 percent schools had definite tobacco use policy.

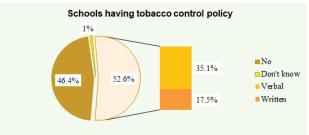


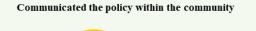
Figure 7 About 35.1 percent schools had verbal tobacco use policy and 17.5 percent schools had written policy.

Table 8 : Schools' tobacco control policy receiver

| Receiver of the policy | Responses | |
|------------------------|-----------|------------|
| | Number | Percentage |
| Teachers | 50 | 42.0 |
| Students | 41 | 34.5 |
| Guardi a s | 28 | 23.5 |
| Total | 119* | 100.0 |

Table 9 : Method of communication of tobacco control policy within school

| Method of policy communication | Responses | |
|--------------------------------|-----------|------------|
| | Number | Percentage |
| Letter | 1 | 1.2 |
| Written notice | 22 | 27.2 |
| Verbally | 28 | 34.6 |
| Institute Brochure | 6 | 7.4 |
| Meeting | 9 | 11.1 |
| Seminar | 11 | 13.6 |
| School Diary | 4 | 4.9 |
| Total | 81* | 100.0 |



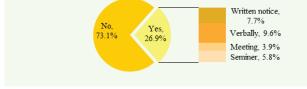


Figure 8 Only one-third schools i.e. 26.9 percent schools had

communicate their tobacco control policy with the community. Among the rest of the schools the policy was communicated verbally 9.6 percent, through written notice 7.7 percent, seminar 5.8 percent and meeting 3.8 percent.

G.Approval of smoking within the school

Table 10: Schools having approval of smoking within the school

| Approval of smoking | Frequency | Percent |
|---------------------|-----------|---------|
| No | 92 | 94.8 |
| Was be fore | 1 | 1.0 |
| Yes | 3 | 3.2 |
| Don't know | 1 | 1.0 |
| Total | 97 | 100.0 |

| Table | 11: | Persons, | places | and | time | allowed | for | smoking |
|--------|------|----------|--------|-----|------|---------|-----|---------|
| within | scho | ools | | | | | | |

| | Frequency | Percent |
|-------------------------|-----------|---------|
| Person allowed to smoke | | |
| Teachers | 2 | 40 |
| Other stuffs | 2 | 40 |
| Guardians | 1 | 20 |
| Total | 5* | 100.0 |
| Places allowed to smoke | | |
| Cafeteria | 1 | 33.3 |
| Others | 2 | 66.7 |
| Total | 3 | 100.0 |
| When allowed to smoke | | |
| Before school hour | 1 | 20 |
| After school hour | 3 | 60 |
| During school hour | 1 | 20 |
| Total | 5* | 100.0 |

 Table 12: Duration of disapproval of smoking within the school

| Disapproval of smoking | Frequency | Percent |
|--------------------------|-----------|---------|
| Not known | 32 | 34.0 |
| From 6 months | 1 | 1.1 |
| More than 1 year | 10 | 10.6 |
| Never from establishment | 51 | 54.3 |
| Total | 97 | 100.0 |

H. Association between tobacco control law/policy and Action for definite taken/Practice of tobacco control by respondents

| | Action taken to | | Presence of |
|--------------------|-----------------|-------------|------------------|
| | prevent | to prevent | definite tobacco |
| | tobacco POS | tobacco ad | use policy |
| | near school | near school | |
| Administration of | 0.210 | 0.201 | 0.185 |
| school | | | |
| Level of school | 0.058 | 0.358 | 0.093 |
| (primary/ | | | |
| secondary/higher | | | |
| secondary) | | | |
| Type of school | 0.646 | 0.007 | 0.321 |
| (Boys'/ Girls'/Co- | | | |
| ed) | | | |
| Designation of | 0.966 | 0.680 | 0.144 |
| respondent | | | |
| Gender | 0.069 | 0.142 | 0.341 |
| Education | 0.481 | 0.617 | 0.916 |
| | | 0.0.64 | 0.000 |
| Smoking habit | 0.477 | 0.961 | 0.002 |
| L | | | |

 Table 13: Probability value by chi-square test

Discussion

· Socio-demographic characteristics of the respondents

More than one-third of respondents 35.05 percent, aged between 36-45 years and mean age of the respondent was 45.38 years. And the male female ratio was 2.13:1. In term of level of education, about 43.3 percent were Masters Graduates and other 33 percent of the respondents completed M. Ed after Masters. The findings were enhanced than that of Bangladesh Education Statistics, 2011. Prevalence of tobacco use among the respondents showed that only 13.4 percent were current smoker and 77.3 percent were never smoker. All of the current smokers used to smoke cigarette. Prevalence of smoking among the teachers is high in Bangladesh for example 3.2 percent in Botswana,⁷ 8 percent in Malaysia.⁸ Our finding was close to another native study where prevalence among secondary school teachers was 17%.⁹ Among Indian primary school teachers, smokingprevalence was 14.5 percent.⁷

• Knowledge about tobacco control law by school authorities

In this study, among the respondents 43.3 percent said that they had knowledge about the current tobacco control law. In another native study conducted among Public Places and Transport Authority showed 68.2 percent knew about the Tobacco Control Law of 2005.¹⁰ About 21.9 percent respondents said that the violators of tobacco control law have to be punished, 18.9 percent said to enforce tobacco control policy, 16.7 percent said to raise awareness in people about tobacco control law and only 7.6 percent respondents think that they have no definite responsibility in tobacco control. Tobacco POS was noticed outside the school by 89.7 percent schools respondents and within the school premises by only 9.3 percent schools respondents. Among the 210 spots of examination, sale to minor was observed at 24.76 percent sites and sale by minor was observed at 17.0 percent sites. Majority of the respondents (81.4 percent) knew that tobacco sale is banned to minors and about half (46.4 percent) knew about banning sale by minors.

• Activities seen regarding tobacco control/ Practice towards tobacco control by school authority

It was found from this study that smoking was not allowed in 94.8 percent schools. This circumstance was better than that where public places and transport authority reported 24.5 percent of their offices and workplaces are not smoke free. At the same time 85.5 percent respondents also added that they had not got any order from government to implement the law.¹⁰ Definite written tobacco control policy is necessary for maintaining smoke-free public place and harmful effects of tobacco/ smoking must be communicated to students.¹¹ Suspending or expelling students for smoking occurs but this can't help them quit smoking. Only 13.4 percent respondents took action to prevent tobacco POS near school. This was pertinent with that where public places and transport authority reported only 15.5 percent of them were involved with anti-tobacco activities.¹⁰ School teachers are respected and influential personnel who can talk to tobacco retailers and parents about the effect of tobacco POS and/or tobacco ad on initiation/continuation of smoking by the adolescents and generate community awareness to disallow tobacco POS near educational institute. Among the 210 spots of examination, sale to minor was observed at 24.8 percent sites and sale by minor was observed at 17.0 percent sites. But in India, 36.6 percent of the respondents reported that they had 'very often' seen tobacco products being sold 'to a minor', while 31.2 percent had seen tobacco products being sold 'by a minor'. 24.8 percent had 'very often' seen tobacco products being sold within a radius of 100 yards of educational institutions.¹²

Conclusion

One strategy for combating the smoking epidemic is to reduce the prevalence of tobacco use through preventing smoking uptake during adolescence. In this study Prevalence of tobacco point of sale within 100 yards of school was 99 percent. General stores selling tobacco products were the common type of point of sale at more than half of the observation spots. At more than two-third spots there was POS tobacco advertising. Packet arranged within glass box was the most common form in more than half spots. Among the respondents more than two-fifth said that they had knowledge about the current tobacco control law. Almost all respondents knew that smoking is not allowed at educational institute. Knowledge of responsibility as a public place authority was satisfactory among them. More than two-fifth respondents knew that tobacco advertisement is banned at tobacco POS. Majority of the respondents knew that tobacco sale is banned to minors and about half knew about banning sale by minors. But step taken to prevent tobacco sale or advertisement at the neighborhood by them were not noteworthy.

Recommendation

From this study following recommendation can be made:

• Incorporation of ban on tobacco point of sale near/ within 100 yards of educational institute.

• Motivating school heads about their responsibility to control tobacco use.

• Reinforcement of ban on direct or indirect tobacco advertising, promotion and sponsorship at the point of sale.

• Incorporating definite guideline to sale tobacco and tobacco display guideline at sale point.

• Continue tobacco control surveillance and evaluation.

References

1. World Health Organization. (2014) Tobacco control economies. [Online] Available from: http://www.who.int/tobacco/economics/en/. [Accessed: 9 September 14].

2. World Health Organization. (2014) Why tobacco is a public health priority [Online] Available from: http://www.who.int/tobacco/ health priority/en/. [Accessed: 9 September 2014].

3. Centers for Disease Control and Prevention (CDC) (2005).MMWR Morb Mortal Wkly Rep- [online] 54(04); p-94-97. Availablefromhttp://www.cdc.gov/mmwr/preview/mmwrhtml/mm5404a3. htm. [Accessed: 10 September 2014].

4. Mohammad, Y., Craving for Nicotine. (2001) A study on Tobacco Prevalence in Bangladesh; Bangladesh Institute of development studies. [cross reference] Available from- http://www.banglajol. info/index.php /BMJ/article/viewFile/3579/2970. [Accessed: 13 December 2013].

5. Md. Tarikul Islam. (2012) Ethics Pops up, Economy Constrains: Ethical Dilemma of Tobacco Retailers in Selling Cigarette to Minors. European Journal of Business and Management. [Online] 4, (2) Available from: https://en.calameo.com/read/001128683e77fd52086e0. [Accessed 22 November 2013]

6. BDNEWS24.com. (2013) Superstores fined for cigarette ads. [Online] Availablefromhttp://bdnews24.com/bangladesh/2013/09/27/superstores-f ined-for-cigarette-ads. [Accessed: 18 October 2014].

7.Erick, P-N., Smith, D.R. (2013) Prevalence of tobacco smoking among school teachers in Botswana. Tobacco Induced Diseases [Online] 11: p-24. Available from- http://www.tobaccoinduceddiseases.com/ content/11/1/24. [Accessed: 27 November 2014].

8. Al-Naggar, R.A., Jawad, A.A., Bobryshev, Y.V. (2012) Prevalence of cigarette smoking and associated factors among secondary school teachers in Malaysia. Asian Pac J Cancer Prev. [Online] 13(11): p-5539-43. Available from- http://www.ncbi.nlm.nih.gov/pubmed/23317214. [Accessed: 27 November 2014].

9. Rahman, M.M., Karim, M.J., Ahmad, S.A., Suhaili, M.R., Ahmad, S. (2011) Prevalence and determinants of smoking behaviour among the secondary school teachers in Bangladesh. Int J Public Health Res. [Online] Special issue: p-2532. Availablefrom:https:// www.google.com.bd/url?sa=t&rct=j&q=&esrc=s&source=web&cd=7 &ved=0CE4QFjAG&url=http%3A%2F%2Fwww.researchgate.net%2F publication%2F256457984_Prevalence_and_Determinants_of_Smoking _Behaviour_among_the_Secondary_School_Teachers_in_Bangladesh% 2Flinks%2F00b7d522c88690c8e7000000&ei=YGJ3VNb3IoGN7AazpoC gDQ&usg=AFQjCNFv8y560FuTF8xEWsxRMXBiw3D9UA&sig2=T6SI AvQIMFNCfXn1Tffpdg&bvm=bv.80642063,d.ZGU&cad=rja. [Accessed: 27 November 2014].

10. Action In Development. Baseline Survey Report. [Online] Available from: http://aid-bd.org/archives/206 [Accessed 15 September 2014]

11. Local correspondent. (2014) Dorshona Keruj High school: 14 students including 10 girls expelled for smoking. The Daily Bartoman. 1 May. p 11.

12. Panda, B., Rout, A., Pati, S., Chauhan, A. S., Tripathy, A., Shrivastava, R., Bass, A. (2012) Tobacco Control Law Enforcement and Compliance in Odisha, India - Implications for Tobacco Control Policy and Practice. Asian Pacific J Cancer Prev, [Online] 13 (9), p-4631-4637. Availablefromhttp://www.apocpcontrol.org/paper_file/ issue_abs/Volume13_No9/4631-37%208.22%20Bhuputra%20Panda.pdf

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