

Socio-demographic Characteristics and Practice of Chewable Tobacco among Bangladesh Police

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Tobacco is an important public health problem of Bangladesh having both high production and consumption. The government of Bangladesh has taken several initiatives to reduce tobacco use. Police are engaged in enforcement of the tobacco control law. For effective enforcement of national tobacco control law, they should have sound knowledge on it. Moreover, for maintaining their own health and efficiency police should be aware of tobacco related health risks. The study was conducted to find out the socio-demographic characteristics and prevalence of chewable tobacco use among Bangladesh Police. The descriptive cross sectional study was carried out among 440 members of Bangladesh Police during the period of March 2015 to November 2015. Seven Districts were randomly selected from seven police ranges in seven administrative Divisions of Bangladesh. From each selected district, Office of the Superintendent of Police (SP), Police Line, Kotwali Thana (Sadar Police Station), District Traffic Office and Police camps were included in the study. Police personnel of different ranks were interviewed randomly from the selected SP offices, police lines, police stations and police camps. A semi-structured questionnaire was used to conduct face to face interview of police personnel regarding socio-demographic characteristics and their practice of chewable tobacco. Among the respondents 414 (94.1%) were male and 26 (5.9%) were female. Most of the respondents (420, 95.5%) were subordinate officers and superior officers were only 20 (4.5%). Mean age of the respondents was 32.2 years with a standard deviation (SD) of 9.6 years. More than three fourth of the respondents (343, 78.0%) were unmarried and 97 (22.0%) were married. Regarding monthly income, majority of the respondents (311, 70.7%) had monthly income between BDT 20,000 to 30,000. Mean monthly income was BDT 16,770.9 with a SD of BDT 6,570. In terms of education, 29 (6.6%) respondents were less than SSC, about one fifth (86, 19.5%) passed SSC, about half (212, 48.2%) passed HSC and more than one fourth (113, 25.7%) of the respondents had graduation and above. Nearly two third (281, 63.9%) of respondents resided without family and 159 (36.1%) resided with family. Most of the respondents (426, 96.8%) were satisfied with their job. Mean duration of service was 11.7 years with an SD of 9.8 years. More than one eighth (60, 13.7%) of the respondents had the habit of consuming chewable tobacco, while maximum police personnel (380, 86.4%) did not take chewable tobacco. Among the chewable tobacco user 47 (10.7%) took occasionally and 13 (3.0%) took chewable tobacco daily. The chewable tobacco was more prevalent in female (19.2%) than male (13.3%). A significant number of police personnel (13.7%) in Bangladesh are currently using chewable tobacco and this should be intervened.

[SSNI Med Col J 2016 Jul; 1 (2):117-123]

Key words: Socio-demographic characteristics, chewable tobacco, Bangladesh Police

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Introduction

Tobacco use is the leading cause of preventable death and disease worldwide. Tobacco is an important public health problem of Bangladesh having both high production and consumption. Bangladesh was the world's 18th leading tobacco producer in 1994 and continues to be the 4th largest producer of cigarettes in the region. Recent socio-economic development and increase in population size make the country a lucrative market for the tobacco industries.¹ Social customs are an integral part of Bangla culture and tobacco use is one of the accepted social norms in Bangladesh.² Both smoking and chewing forms of tobacco use is common in Bangladesh. Smoking is much common among male than female whereas chewing is more common among female population in Bangladesh. Use of smokeless forms of tobacco is highly acceptable in the society of Bangladesh.¹ GATS (2009) showed that 43% of all adults (age above 15 years) use some forms of tobacco in Bangladesh (male 58%, female 29%). Over 95,000 people die in Bangladesh each year from tobacco related disease.³

Smoking related diseases such as pulmonary diseases, stroke, ischemic heart disease, lung cancer and oral cancer are well documented in literature.⁴⁻⁸ Tobacco related illness such as cancer, cardiovascular and respiratory diseases are major problems in Bangladesh too. There are 1.2 million cases of tobacco related illness in Bangladesh each year. Due to a high prevalence of chewable tobacco use in various forms, Bangladesh has significant incidences of oral cancers¹. Health care costs associated with tobacco related illness amount to 10% of monthly household expenditure.⁷

The government of Bangladesh has taken several initiatives to reduce tobacco use. Bangladesh is one of the first signatory countries of WHO FCTC.² Bangladesh

enacted a tobacco control law in 2005 in accordance with some of the provisions of WHO FCTC. Its regulations also came in to force in September 2006 to facilitate the enforcement of law with an amendment in 2013. GOB took a national strategic plan of action in order to reduce tobacco consumption, to promote cessation of tobacco use, to protect non-smokers from environmental tobacco smoke. This will ultimately protect the present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke.¹

Bangladesh Police is committed to enforce law, maintain social order, reduce fear of crime, enhance public safety and ensure internal security with the active support of community.⁹ Police occupy an important position within the community as both enforcers of the law and as role models for appropriate behavior. Researches outside the country have shown that they consume tobacco at rates higher than the general population.¹⁰⁻¹² Occupational stress is an identified causal factor for this.¹³⁻¹⁴ Often this is regardless of their knowledge about how harmful it is. They believe quite wrongly that tobacco will lower their stress level.¹⁵

In Bangladesh there is no study on tobacco use among police. The exact rate of smoking and use of chewable tobacco has not been elucidated among Bangladesh Police. There are many reasons why it might be higher than the general community. For maintaining their own health and efficiency police personnel should be aware of smoking related health risks. GOB has declared public places, including police stations to be smoke-free. People also demand for smoke-free public places. In order to preserve physical health, psychological well-being, safety and efficiency of police at work, governments will

need to place a greater emphasis on the occupational health of the police and prior to this; exact scenario of tobacco use among Bangladesh police needs to be explored. In this study, we considered it very important to assess the situation of chewable tobacco use among Bangladesh police. The study results will help to strengthening tobacco control policy and initiating programs to prevent tobacco consumption by the police.

Methods

The descriptive cross sectional study was carried out among 440 members of Bangladesh Police during the period of March' 2015 to November 2015. Seven Districts were randomly selected from seven police ranges in seven administrative Divisions of Bangladesh. From each selected district, Office of the Superintendent of Police (SP), Police Line, Kotwali Thana (Sadar Police Station), District Traffic Office and Police camps were included in the study. Police personnel of different ranks were interviewed randomly from the selected SP offices, police lines, police stations and police camps. A semi-structured questionnaire was used to conduct face to face interview of police personnel regarding socio-demographic characteristics and their practice of chewable tobacco.

Data input was in SPSS 20 version, checked for the consistency and then cleaned. SPSS 20 version was used to analyze data. Univariate analysis was carried out for socio-demographic characteristics and to measure the prevalence of chewable tobacco use among police. Data were collected after getting permission from Police Headquarters. Informed verbal consent was taken from every participant prior to data collection. Ethical clearance was obtained from Ethical Committee of Sylhet M A G Osmani Medical College, Bangladesh.

Results

Police personnel of different ranks from seven police ranges of Bangladesh were invited to participate in the study. During the study period 440 police personnel were interviewed proportionately from each police range who represent the entire 1,52,000 members of Bangladesh Police. The highest number of police (118, 26.8%) personnel was interviewed from Dhaka range and the lowest was from Sylhet range (27, 6.1%, Table I).

Most of the respondents (420, 95.5%) were subordinate officers and superior officers were only 20 (4.5%). Among the subordinate officers Inspectors were 17 (3.9%), SI/Sergeant/TSI were 35 (8.0%) and the maximum (368, 83.6%) were ASI/ATSI/Naek/Constable (Table II).

Socio-demographic characteristics

Regarding the socio-demographic characteristics it revealed that almost half of the respondents (218, 49.5%) were below 29 years old. More than one fourth (123, 28.0%) were in the age group of 30 to 39 years, 59 (13.4%) were in 40 to 49 years. Less than one tenth (40, 9.1%) of the respondents were above 49 years. Mean age of the respondents was 32.2 years with a standard deviation (SD) of 9.6 years. Most of the police personnel were male (414, 94.1%) and 26 (5.9%) were female. More than three fourth of the respondents (343, 78.0%) were unmarried and 97 (22.0%) were married. Regarding monthly income, majority of the respondents (311, 70.7%) had monthly income between BDT 20,000 to 30,000 and 72 (16.4%) had between BDT 10,001 to 20,000. Less than one tenth (40, 9.1%) of the respondents had monthly income below BDT 10,001 and only 17 (3.8%) respondents had income more than BDT 30,000 in a month. Mean monthly income was BDT 16,770.9 with a SD of BDT 6,570 (Table III).

In terms of education, 29 (6.6%) respondents were less than SSC, about one fifth (86, 19.5%) passed SSC, about half (212, 48.2%) passed HSC and more than one fourth (113, 25.7%) of the respondents had graduation and above (Figure 1).

Nearly two third (281, 63.9%) of respondents resided without family and 159 (36.1%) resided with family. Most of the respondents (426, 96.8%) were satisfied with their job. Only 8 (1.8%) respondents were just satisfied and 6 (1.4%) were not satisfied with their job (Table IV).

More than half (232, 52.7%) of the respondents' duration of service was less than 10 years. More than one fourth (121, 27.5%) respondents worked for 10 to 19 years and more than one tenth (47, 10.7%) worked for 20 to 29 years. Less than one tenth of the respondents (40, 9.1%) had the service duration of 30 years and above. Mean duration of service was 11.7 years with an SD of 9.8 years (Table V).

Table I: Distribution of respondents by Police Range and Districts

Police Range	District	Frequency	Percentage (%)
Dhaka	Mymensingh	118	26.8
Chittagong	Cox's Bazar	101	23.0
Khulna	Bagerhat	66	15.0
Rajshahi	Rajshahi	53	12.0
Rangpur	Lalmonirhat	40	9.1
Barishal	Patuakhali	35	8.0
Sylhet	Sylhet	27	6.1
Total		440	100.0

Practice of chewable tobacco

More than one eighth (60, 13.7%) of the respondents had the habit of consuming chewable tobacco, while maximum police personnel (380, 86.4%) did not take chewable tobacco. Among the chewable tobacco user 47 (10.7%) took occasionally and 13 (3.0%) took chewable tobacco daily (Figure 2).

Chewable tobacco was more prevalent in female (19.2%) than male (13.3%, Figure 3).

Table II: Distribution of respondents by Designation

Officer Category	Job Class	Designation	No	%
Superior Officer	First class	SP/Add SP/Senior ASP/ ASP	20	4.5
Subordinate Officer	First class	Inspector	17	3.9
	Second class	SI/Sergeant/TSI	35	8.0
	Third class	ASI/ATSI/Naek/ Constable	368	83.6
Total			440	100.0

Table III: Socio-demographic characteristics of the respondents (n=440)

Variable	Category	No	%
Age in years	Below 29	218	49.5
	30 – 39	123	28.0
	40 – 49	59	13.4
	Above 50	40	9.1
Sex	Male	414	94.1
	Female	26	5.9
Marital Status	Married	97	22.0
	Unmarried	343	78.0
Monthly Income (BDT)	Below 10,001	40	9.1
	10,001 – 20,000	311	70.7
	20,001 – 30,000	72	16.4
	Above 30,000	17	3.8

Table IV: Status of residing in workplace and job satisfaction of the respondents (n=440)

Variable	Category	No	%
Status of residing in workplace	Without family	281	63.9
	With family	159	36.1
Job satisfaction	Satisfied	426	96.8
	Just satisfied	8	1.8
	Not satisfied	6	1.4

Table V: Distribution of respondents by the duration of service (n=440)

Variable	Category	No	%
Duration of service (years)	0 - 9	232	52.7
	10 - 19	121	27.5
	20 - 29	47	10.7
	30 and above	40	9.1
Total		440	100.0

*Mean=11.7 years; SD= 9.8 years

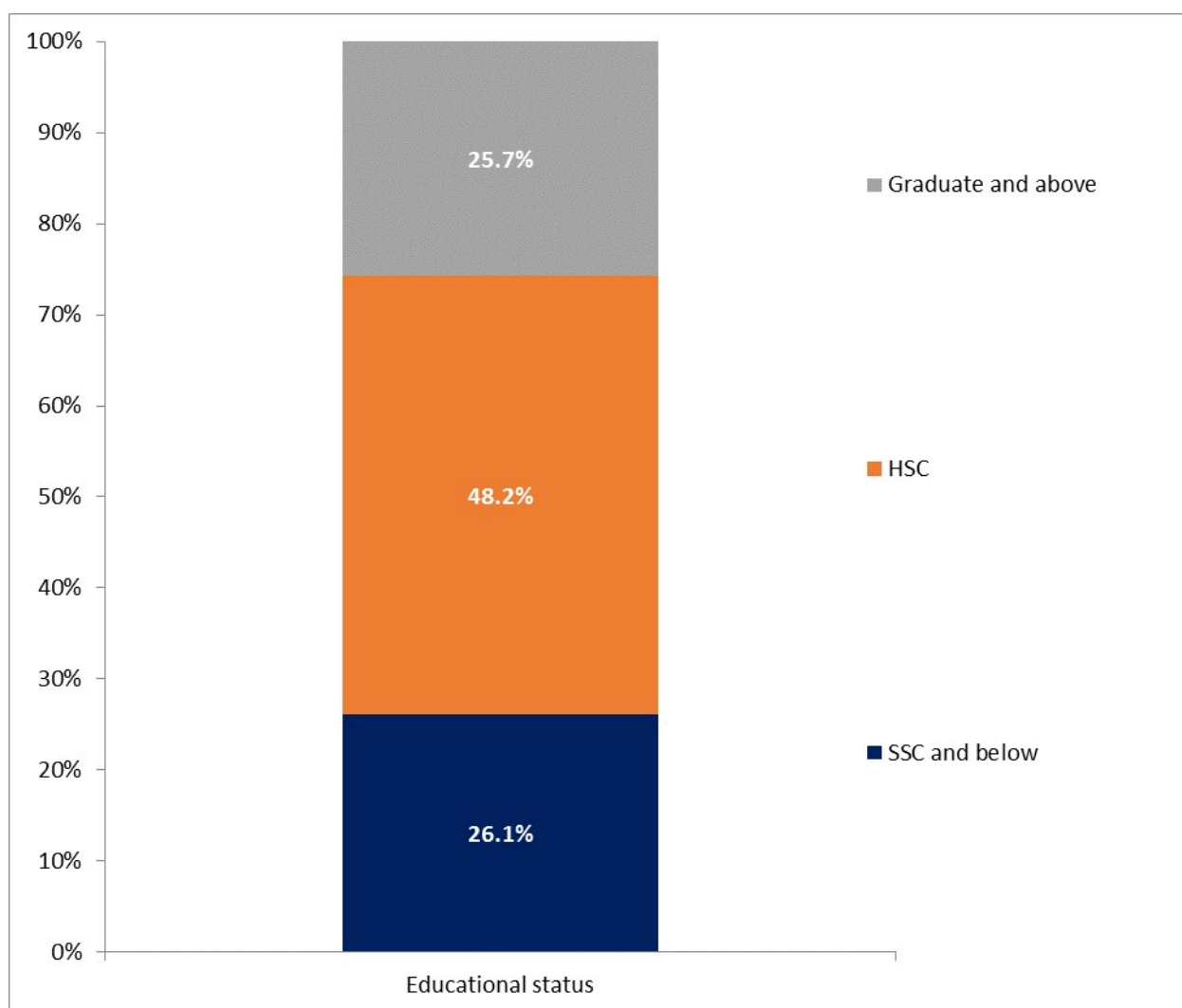


Figure 1. Educational status of the respondents (n=440)

Discussion

This study was a part of ongoing tobacco research program, supported and funded by Bangladesh Center for Communication Programs (BCCP) and John Hopkins School of Public Health (JHSPH). This study is probably the first study with properly designed methodology among Bangladesh Police regarding practice of chewable tobacco. The physical health, psychological well-being, safety and efficiency at work are important factors for any police agency to consider. Researches from other countries suggest that police personnel consumed more tobacco than general people. Often excess smoking makes them fatigue. Shift work, insufficient sleep, long and erratic work hours also contribute to this. This study was aimed at measuring the prevalence of chewable tobacco use among police personnel. A total of 440 Police personnel of different ranks from seven police ranges of Bangladesh participated in the study. Most of the respondents (420, 95.5%) were subordinate officers and superior officers were only 20 (4.5%). Among the subordinate officers Inspectors were 17 (3.9%), SI/Sergeant/TSI were 35 (8.0%) and the maximum (368, 83.6%) were ASI/ATSI/Naek/Constable.

Socio-demographic characteristics

The study revealed that mean age of the respondents was 32.2 years with a standard deviation (SD) of 9.6 years. Most of the police personnel (414, 94.1%) were male and 26 (5.9%) were female. This figure did not correspond with the national sex ratio of Bangladesh (0.95male/female)¹⁶. This may be due to lack of interest from the part of both government and females of our country to be recruited in police agency. More than three fourth of the respondents (343, 78.0%) were unmarried and 97 (22.0%) were married. In terms of education, nearly three fourth (327, 74.3%) of the respondent were HSC and below and more than one fourth (113, 25.7%)

of the respondents had graduation degree and above. Majority of the respondents (311, 70.7%) had monthly income between BDT 20,000 to 30,000 and only 17 (3.8%) respondents had income more than BDT 30,000 in a month. Mean monthly income was BDT 16,770.9 with a SD of BDT 6,570. Nearly two third (281, 63.9%) of respondents resided without family and 159 (36.1%) resided with family. Most of the respondents (426, 96.8%) were satisfied with their job. More than half (232, 52.7%) of the respondents' duration of service was less than 10 years. Less than one tenth of the respondents (40, 9.1%) had the service duration of 30 years and above. Mean duration of service was 11.7 years with an SD of 9.8 years.

Chewable tobacco

More than one eighth (60, 13.7%) of the respondents had the habit of consuming chewable tobacco, while maximum police personnel (380, 86.4%) did not take chewable tobacco. Among the chewable tobacco user 47 (10.7%) took occasionally and 13 (3.0%) took chewable tobacco daily. This study revealed that the chewable tobacco is more prevalent in female (19.2%) than male (13.3%). The prevalence of smokeless tobacco consumption by the police personnel was much lower than the adult general population of Bangladesh (27.2%).^{17,2}

Acknowledgements

This study was conducted under the research grant program, supported and funded by Bangladesh Center for Communication Programs (BCCP) and John Hopkins School of Public Health (JHSPH). I would like to thank Mohammad Shahjahan, Director & CEO, Dr. Nazrul Haque, Team Leader, Tobacco Control Program, Dr. Md. Kapil Ahmed, Deputy Director, Research & Evaluation and Goutam Shuvra Biswas, Research Manager of BCCP for their

encouragement and support. Professor Dr. Murshed Ahmed Chowdhury, Principal, Sylhet M A G Osmani Medical College is thanked for administrative support. I would like to thank the then IGP, Additional IGP (Administration & Operation), DIG, Sylhet Range, AIG (Establishment), AIG (Planning & Research) and Additional SP (Planning & Research) for their sincere cooperation regarding information & permission.

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