

Smoking Habits among the Jute Mill Workers in Bangladesh.

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Abstract

Background: The habit of tobacco smoking has spread throughout the world and as a major source of morbidity and mortality, is a serious public health problem. Tobacco smoking reduces life expectancy, increases overall medical costs and contributes to loss of productivity during the lifespan of an individual. **Objective:** To determine the socio-demographic characteristics and association of the smoking habits with sex of the Jute Mill workers. **Materials and Methods:** The study design was a cross-sectional and conducted in the Sadat Jute Mill, Comilla, Bangladesh from October 2019 to December 2019. A total of two hundred and fifty six (256) male and female workers were included in the study and data were collected by using a pre-tested, semi-structured questionnaire. **Results:** The mean age of the respondents were 35.77 ± 10.61 years, 80.62% were male, 19.38% were female. 8.5% were illiterate, 40.7% were educated up to primary level, 40.3% were up to SSC level and the remaining 14% were up to HSC and above. More than half (58.1%) of the workers had monthly income of TK 5000 to 10,000 followed by 27.5% less than TK 5000 per month, only 14.4% of the respondents have earned more than TK 10,000 per month. A positive association was found between the sexes of the respondents with the smoking habits among the jute mill workers. **Conclusion:** The prevalence of smoking reflects the magnitude of the problem and determines its importance, since it provides a basis for the planning of public health actions. Findings obtained from this study also suggested valuable insight regarding strengthening implementation of tobacco control policy of Bangladesh.

Keywords: Smoking habits, Jute mill workers.

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Introduction

The habit of tobacco smoking has spread throughout the world and, as a major source of morbidity and mortality, is a serious public health problem.¹⁻⁶ Despite numerous efforts to reduce its prevalence, which have enabled an estimated reduction in global prevalence from 25.7% in 2000 to 19.8% in 2015, the tobacco smoking projected prevalence estimated in 2025 will still stand at 17.1%, with significantly higher estimates (24.0%) in Europe. In terms of sex, there is a 3:2 ratio in Europe, compared to 2:1 in the U.S. In other countries, there is an apparent prevalence of tobacco product use in men.⁷ Smoking will cost 60 million of life lost within the next 20 years; according to World

Health Organization, tobacco smoking is the first leading risk factor causing early death and disability in males.⁸

The list of diseases caused by smoking includes chronic obstructive pulmonary disease, coronary heart disease, stroke, abdominal aortic aneurysm, acute myeloid leukemia, cataract, pneumonia, periodontitis, and bladder, esophageal, laryngeal, lung, oral, throat, cervical, kidney, stomach, and pancreatic cancers.⁹ Cigarette smoke contains over 4,800 chemicals, 69 of which are known to cause cancer. Smoking is directly responsible for approximately 90 percent of lung cancer deaths and approximately 80-90 percent of COPD deaths.¹⁰ Among current smokers, chronic lung disease accounts for 73 percent of smoking-related conditions. Even among smokers who have quit smoking, chronic lung disease accounts for 50 percent of smoking-related conditions.¹¹ Bangladesh is one of the top ten countries in the world with high current smoking prevalence of 44.7% among men.¹²

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A previous epidemiological study conducted in 2004 showed that smoking was responsible for approximately 57000 deaths and 1.2 million tobacco related illnesses per year in Bangladesh; 16% of all deaths among those of age 30 years and older were attributed to tobacco use.¹³ A more recent study conducted using 2010 data concluded that about 25% of all deaths among men aged 25 to 69 years are attributable to smoking leading to average loss of 7 years of life per smoker.¹⁴ Bangladesh is also one of the largest jute producing country. More than 1.5 million workers are employed in 11,983 presently functioning looms of jute industries in Bangladesh. It is estimated that 307 jute mills (government /non-government: 26 /281) have been producing jute goods. The jute products are exported to India, Syria, Tunisia, Turkey, Iraq, Thailand and other countries. The daily average wage of jute-mill workers (JMW) has been reported as BDT ~308.00 (approximately USD 3.6).¹⁵ The health status of the low paid JMW remained unknown. In Bangladesh, no study has been so far conducted to assess the smoking habits among the jute mill workers. So this study has been conducted with the aim to find out the association between the sex and smoking habits among the jute mill workers in Bangladesh.

Materials and Methods

This study was a descriptive type of cross sectional study conducted among JMW of Sadat Jute Mill, Comilla from October 2019 to December 2019. After written and informed consent, a total of 258 voluntarily agreed adult male and female JMW participated in this study. A pre-tested, semi-structured questionnaire was used for data collection by face to face interview. All statistical analysis was performed by SPSS and Microsoft excel. Chi-square test was done to see the relationship and statistical significance of the

dependent and independent variables. JMW who had been working for more than 6 months and willing to participate in the study were included and JMW who were mentally ill and not willing to participate in the study were excluded.

Results

Table I: Age group of the respondents.

Age group	Frequency	Percentage
Up to 20 years	19	7.4
20 to 30 years	83	32.2
30 to 40 years	93	36.0
40 to 50 years	48	18.6
>50 years	15	5.8
Total	258	100.0

Table I revealed that out of the 258 participants 36% were from 30-40 years age group followed by 32.2% were from 20-30 years age group, 18.6% were from 40-50 years age group, only 7.4% were less than 20 years and 5.8% were from more than 50 years of age group.

Table II: Monthly income of the respondents.

Income in Tk	Frequency	Percentage
Within Tk 5000	71	27.5
Tk 5000 to 10000	150	58.1
Tk 10000 to 20000	34	13.2
Tk > 20000	3	1.2
Total	258	100.0

Table 2 explained that more than half (58.1%) of the workers had a monthly income of Tk 5000-10,000/- followed by 27.5% had an income of less than Tk 5000/- per month, only 1.2% of the respondents had earned more than 10000/- per month.

Table III: Smoking habit of the respondents.

Smoking	Frequency	Percentage
Yes	65	25.2
No	193	74.8
Total	258	100.0

It was revealed from the table 3 that out of 258 respondents 74.8% were nonsmoker and remaining 25.2% were found smoker.

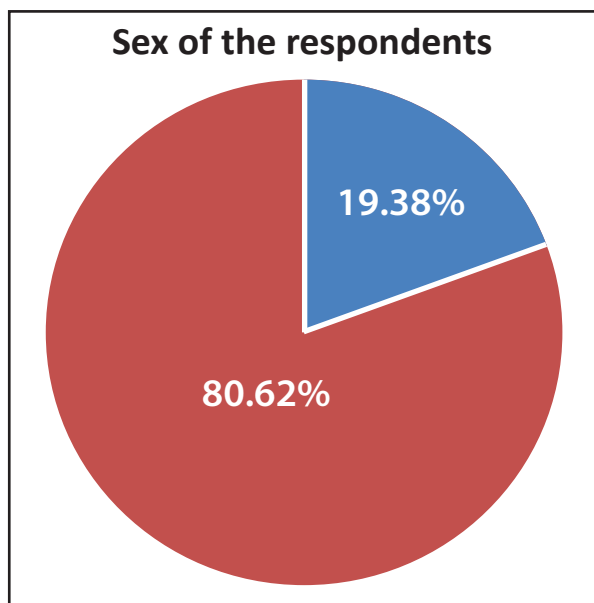
Figure 1: Distribution of Sex among the respondents.

Figure 1 represents that about 80.62% of the respondents were male and the remaining 19.38% were female.

Table IV: SRelationship between sex of the respondents and smoking habits of the respondents.

Sex	Smoking habits of the respondents		Total (%)	χ^2 test	p value
	Yes	No			
Male	65 (31.2%)	143(68.8%)	208(100.0%)	277.63	< 0.001
Female	0	50(100.0%)	50(100.0%)		
total	65(25.2%)	193(74.8%)	258 (100%)		

Table 4 represents that out of the total 208 male respondents about 143 (68.8%) were non-smokers and only 65 (31.2%) were reported smoking. Among the female respondents no one reported smoking. The smoking habits of the respondents were statistically significant with the sex of the respondents. ($p < 0.001$)

Discussion

Smoking and passive smoking are collectively the biggest preventable cause of death in Bangladesh, with major public health burden of morbidity, disability, mortality and community costs.^{12,13} An earlier epidemiological study conducted in 2004 showed that smoking was responsible for approximately 5000 deaths and 1.2 million tobacco related illnesses per year in Bangladesh; 16% of all deaths among those of age 30 years and older were attributed to tobacco use.¹²

The study was aimed to evaluate the smoking habits of the JMW. In our study most of the respondents were from age group 30- 40 years, where in a similar type of study most of the respondents were from 18-25 years.¹⁶

In the current study it was found that most of the workers (58.1%) had monthly income of Tk. 5000-10,000 which is similar to another study done in Dhaka city among the garments workers.¹⁶ The prevalence of smoking habits among the mill workers were 25.2% which was less than the national data obtained from Global Adult Tobacco Survey (GATS) in 2009 (43.3%).¹⁷ Similar study was done among the garments worker in Dhaka city where it was found that overall tobacco consumption was 14.1 percent among the garments workers which was less than the findings of our study¹⁶. Another study conducted by Zakir Anwar Ansari showed prevalence of tobacco use was 85.9% which was much higher than the findings of the current study.¹⁸

The study shows that the smoking habit of the respondents were statistically significant with the sex of the respondents ($p < 0.001$). A similar type of

study showed that the prevalence of tobacco use is generally higher among men than women, which supports the findings of our study.¹⁹

Limitation of the study

The study was conducted in a single jute mill, so the findings cannot be applied to all jute mill workers of our country. Since the study design was cross sectional, it referenced only a single point in time.

Conclusion

In our culture, smoking is an acceptable behavior for adults. So, smoking behavior cannot be controlled only increasing level of knowledge related to health hazards of smoking. Warning message and text might have little impact on reducing smoking behavior than socio-cultural and regulatory intervention. The prevalence of smoking reflects the magnitude of the problem, and determining it is important since it provides a basis for the planning of public health actions. Findings obtained from this study also suggested valuable insight regarding strengthening implementation of tobacco control policy of Bangladesh. Besides knowledge and attitudes towards tobacco, it revealed some socio-cultural aspects which have a valuable base for controlling tobacco consumption practice among jute mill workers. In addition, more focused qualitative study is needed in this purpose.

Recommendations

1. Programs need to be established to disseminate the correct and appropriate information about the health consequences of smoking to educate the jute mill workers.
2. Regular surveys should be done to monitor the situation and the effectiveness of preventive programs.
3. Assist the work of social workers and other

health promotion workers in their work in the smoker's advices to quit smoking.

4. In addition, the media can assist by disseminating the message of quitting smoking to the Jute Mill workers.

5. We recommend that the factors identified in this study should be taken into consideration in antismoking programs to make them more effective and better able to influence the attitudes and behaviors of smokers.

6. Law enforcers should be more sensible regarding their own tobacco using practice and should be more active for implementing tobacco control policy.

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