

BACKGROUND

- Bangladesh is one of the top ten countries with high smoking prevalence where nearly two-thirds of the world's smokers live (WHO, 2008).
- Several studies in the west had reported a high prevalence of SLT use among south Asians including Bangladeshis.
- However nationally representative prevalence data on SLT use and factors associated with SLT use are sparse in Bangladesh.
- Understanding the pattern of SLT use would support the development of interventions to combat the harms of SLT among the public.

OBJECTIVES

- To examine the patterns of SLT use among adult (aged 15 and above) smokers in Bangladesh.
- To identify the factors associated with SLT use among Bangladeshi smokers.

SURVEY AND ANALYSIS

- The ITC Bangladesh Wave 2 Survey is a nationally representative probability sample of population based survey of households.
- Households were sampled using a stratified multistage design and interviewed using a structured questionnaire.
- All analyses were performed using SAS.

MEASURES

- Our primary dependent variable was SLT use (N=1165/5680)
- Demographic variables included in the analyses were: sex, age, residence (urban slum, urban non-slum, rural), education level, income, marital status, and religion.
- Other variables examined as potential correlates of SLT use were: type and pattern of tobacco smoked, attitudes towards SLT use including societal attitudes, use of SLT by women, whether SLT is addictive, perception of SLT as less harmful than cigarettes or bidi and whether SLT use is bad.

RESULTS

- Of the respondents (N=5680), 62% were male, 34% were illiterate, 80% were married and 45% were non-smokers. 21% (1165/5680) of the respondents were smokeless tobacco (SLT) users.
- SLT users were significantly more likely to be those who were female (25%) than male (20%), aged 40 years or older (33%) than aged 15-24 years (8%), married (24%) than otherwise (12%), the illiterate (31%) than those who attained education of 9 years or more (9%), with low income (below Taka 5000) (25%) than a high income (Taka 10,000 or more) (18%), those who did not smoke cigarette exclusively (31%) than those who smoked exclusively cigarette (18%), those who agreed that smoking by women is acceptable (26%) than those who did not agree (20%), and those who thought that SLT is less harmful (33%) than more harmful (13%) compared with cigarettes, and less harmful (37%) than more harmful (13%) compared with bidi smoking. Those who thought SLT use was bad (20%) than otherwise (32%) were less likely to use SLT.
- The Table at right presents the results from the final, weighted logistic regression model, accounting for the sampling design. This analysis (including a sex X residence interaction term to account for potential differences in the tribal/border areas) identified five predictors of SLT use: being aged 25-39 (OR=2.14) or 40-54 (OR=3.71) or 55 and above (OR=5.89), being married (OR=1.38), attaining education to 8 years (OR=0.75) or 9 years or above (OR=0.33), and believing that SLT is more harmful than bidi (OR=0.24) or no difference between SLT and bidi (OR=0.18).

Table. Logistic regression model to predict smokeless tobacco use among Bangladeshi smokers.

Effect	OR	95% CI of OR	P-value
Age			<0.001
15-24 years	1.00		
25-39	2.14	(1.37 -3.33)	
40-54	3.71	(2.14 -6.43)	
55+	5.89	(4.12 -8.43)	
Tobacco use status			0.859
Non-smokers	1.00		
Exclusively cigarette users	0.91	(0.55 -1.49)	
Exclusively bidi users	0.84	(0.51 -1.40)	
Dual user	0.96	(0.62 -1.49)	
Quitters	1.05	(0.64 -1.71)	
Marital Status			0.009
Otherwise	1.00		
Married	1.38	(1.08-1.75)	
Education			<0.001
Illiterate	1.00		
1 to 8 years	0.75	(0.64 -0.87)	
9+ years	0.33	(0.23 -0.46)	
Smokeless compared to cigarette			0.023
Less harmful	1.00		
More harmful	1.01	(0.40 -2.57)	
No difference	2.40	(0.74 -7.80)	
Smokeless compared to bidi			0.001
Less harmful	1.00		
More harmful	0.24	(0.11 -0.51)	
No difference	0.18	(0.05 -0.66)	

CONCLUSIONS

- The findings show that a significant proportion of Bangladeshi adults use smokeless tobacco (SLT).
- Many of the factors that are associated with SLT use are similar to those with cigarette or bidi users.
- Evidence based approaches for cigarette use reduction could be used to promote SLT use reduction. Population based tobacco control programs should include SLT use within the intervention framework.



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