

Original Article

Patterns and Attitudes toward Smokeless Tobacco Consumption among Women in a Rural Setting

Lima FA¹, Chowdhury AM², Hossain A³, Paul M⁴, Ripa SA⁵, Ferdous S⁶

Abstract

Background: Smokeless tobacco (SLT) consumption is culturally practiced in Bangladesh. Despite its popularity, inadequate information is available on SLT usage. The common belief among the consumers of smokeless tobacco is that it is not as hazardous as smoking tobacco. **Objective:** To assess the patterns and attitudes toward smokeless tobacco consumption among women in a rural setting. **Methods:** The cross-sectional study is conducted over ten days among 288 women in Sreemantapur rural area at Sadar South Upazilla under Cumilla district. Respondents are chosen by convenience sampling technique; data collection method is face-to-face interview with a semi-structured questionnaire. **Results:** Out of 288 respondents, the majority (37.5%) of the participant's age is <30 years. Most of them (96.5%) are housewives and 27.8% are educated up to secondary level. About the consumption of SLT, 24.3% of the participants consume SLT among them 48.3% consume Zarda and 37.5% of Zarda consumers have been consuming it for 6-10 years. Regarding the suffering of the participants, 67.1% of SLT consumers report that they suffer if they do not consume SLT. Regarding attitude towards smokeless tobacco, 93.4% of our respondents believe that SLT use is not acceptable for women in society, 96.2% and 94.8% agreed that women using SLT harms their health and smokeless tobacco is addictive respectively. **Conclusion:** Our data suggests that the attitude towards SLT among women in rural setting is satisfactory but there is still a prevalence of SLT consumption. National wide campaign activities should be conducted elaborately to raise awareness among rural women to reduce smokeless tobacco use.

Keywords: Smokeless tobacco, pattern, attitude, women in rural setting of Bangladesh.

Introduction: Tobacco is one of the largest preventable causes of death in the world¹. It is used in two forms – smoked and smokeless tobacco. “Smokeless tobacco” (SLT) means use of any unburned tobacco those are used to be sucked, chewed or inhaled by the user. In South Asia, tobacco is chewed in different forms such as betel leaf with areca nut, betel leaf alone; zarda, shadapata, gul and consumption patterns across countries differ in terms of socio-cultural norms, habits, availability, accessibility, and legislations in place². SLT products in South Asia and Western governments differ in

various aspects, such as constituents, nicotine concentration, manufacturing, and storage methods³. Its use is prevalent in all strata and groups in our society and is very common and frequent in social and cultural events in these countries⁴.

SLT is highly used in South and South-East Asia where over one-third of tobacco is used in smokeless form⁵. According to WHO, 90% of global smokeless tobacco (SLT) users live in the Southeast Asia region⁶. Around 300 million people globally use SLT and 27 million are Bangladeshi adults⁷. In the 16 Global Adult Tobacco Survey (GATS) countries

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surveyed, around 6.7% of women consumed smokeless tobacco (SLT)⁸. In Bangladesh, the prevalence of SLT use among females is actually higher than that of males, at 24.8% and 16.2%, respectively (GATS, 2017)⁹.

Tobacco contains thousands of compounds that may cause adverse effects on human health¹. It causes oral, oropharyngeal, laryngeal, oesophageal cancer and is also associated with diabetes, hypertension, hypercholesterolemia, myocardial infarction, adverse effects on pregnancy and aggravates asthma⁵. Worldwide, about 6 million people die from tobacco-related causes every year. If this pattern of tobacco use continues, it is estimated that during the 21st century, there could be one billion premature deaths globally occur⁸.

Though smoking is used by the young or by women in Bangladesh and other South Asian countries, it is not favored through traditional values and social norms there is no such taboo against SLT which is being incorporated into conventional values, spirituality, beliefs, festivals, lifestyle, and rituals such as marriage and popular entertainment¹⁰.

METHODS AND MATERIALS:

This cross-sectional study was carried over ten days (1st August 2022 to 10th August 2022) involving 288 rural women who were willing to participate in the study. Participants were selected by convenient sampling technique. Face-to-face interview was the data collection method to assess the socio-demographic characteristics, patterns and attitudes toward smokeless tobacco. Data were analyzed by SPSS - 25 versions. Analysis was done by descriptively through mean, frequency, standard deviation and percentage in table and graph.

ETHICAL IMPLICATIONS:

To collect data, permission was taken from the local administrative authority. Each participant was informed about the purpose of the study, written consent was taken.

LIMITATIONS OF THE STUDY:

Small sample size and the representativeness of the sample are the main limitations of the study. The

validity of responses provided by participants can't be guaranteed as smokeless tobacco is a sensitive issue. As there was no monetary benefit, some rural women were reluctant to participate in the interview but their information could have enriched our research report.

RESULTS:

Socio-demographic characteristics:

Table 1 shows the socio-demographic characteristics of the participants where 108 (37.5%) women were <30 years with a mean age of 38.88 ± 14.169 years. Regarding educational qualification, 80 (27.8%) had secondary education and 7 (2.4%) respondents completed their graduation. Almost all participants 278 (96.5%) were housewives, 128 (44.4%) had monthly family income between 20001-400000 tk. and the same 128 (44.4%) were living in pucca houses.

Table-1: socio-demographic characteristics of the respondents (n=288)

Variable	Frequency	Percentage (%)
Age (years)		
< 30	108	37.5
31-40	80	27.8
41-50	34	11.8
51-60	41	14.2
61-70	25	8.7
Religion		
Muslim	288	100
Hindu	00	0
Educational qualification		
Illiterate	28	9.7
Informal education	39	13.5
Primary	46	16
Secondary	80	27.8
S.S.C/Equivalent	64	22.2
H.S.C/Equivalent	24	8.3
Graduation/Equivalent	07	2.4

Variable	Frequency	Percentage (%)
Occupational status		
Housewife	278	96.5
Service holder	05	1.7
Student	04	1.4
Day labourer	01	0.3
Monthly family income (in taka)		
<20000	75	26
20001-40000	128	44.4
40001-60000	61	21.2
>60000	24	8.3
Housing condition		
Kacha	19	6.6
Semi-pucca	141	49
Pucca	128	44.4

Patterns of smokeless tobacco (SLT) consumption:

Regarding consumption of smokeless tobacco (SLT), 70 (24.3%) of the participants consumed SLT (fig-1) among them majority i.e., 56 (48.3%) of the participants consumed zarda followed by 32(27.60%) khoini, 25(21.60%) sadapata and only 3(2.6%) used gul (fig-2).

n=288

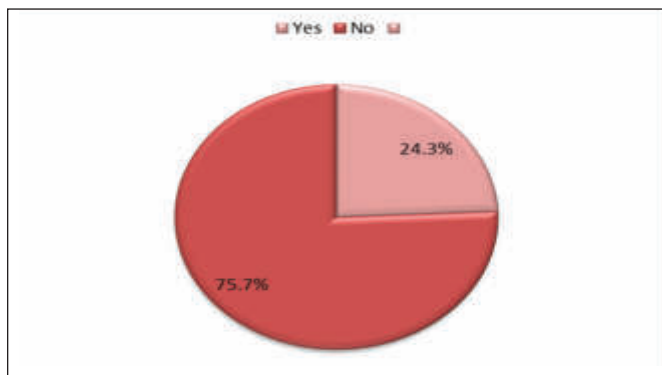
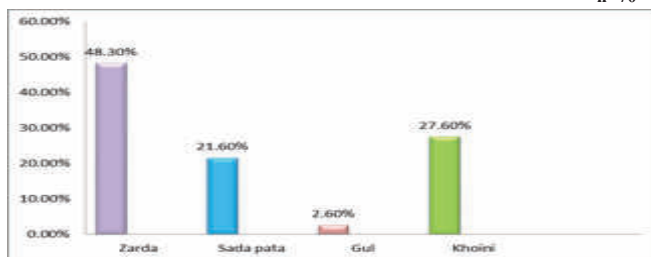


Fig-1: Distribution of participants by consumption of smokeless tobacco

n=70



*Multiple responses present

Fig – 2: Distribution of the participants by type of SLT consumption

Table-2 represents information regarding duration of consumption of SLT. Among the participants consuming SLT (n=70), majority i.e. 21(37.5%) had been consuming zarda for the duration of 6-10 years; 8(32%) and 11(34.4%) had been consuming sadapata and khoini respectively for the same duration.

Table-2: Distribution of participants by duration (years) of consumption of SLT (n=70)

Type of smokeless tobacco	Duration of consumption of smokeless tobacco						Statistics
	1-5 f (%)	6-10 f (%)	11-15 f (%)	16-20 f (%)	>20 f (%)	Total	
Zarda	17 (30.4%)	21 (37.5%)	7 (12.5%)	6 (10.7%)	5 (8.9%)	56 (100%)	Mean ±SD =11.04±7.145 Min = 2 Max = 40
Sadapata	6 (24.0%)	8 (32.0%)	3 (12.0%)	5 (20.0%)	3 (12.0%)	25 (100%)	Mean ±SD =13.28±9.104 Min = 3 Max = 40
Gul	1 (33.3%)	2 (66.7%)				3 (100%)	Mean ±SD =7.67±4.041 Min = 3 Max = 10
Khoini	7 (21.9%)	11 (34.4%)	6 (18.8%)	4 (12.5%)	4 (12.5%)	32 (100%)	Mean ±SD =12.78±9.079 Min = 2 Max = 40

*multiple responses present

Table 3 demonstrates the frequency of consumption of SLT (per day) where 35(62.5%), 17(68%) and 20(62.5%) SLT users had been consuming zarda, sadapata and khoini respectively with a frequency of 4-6 times per day.

Table-3: Distribution of participants by frequency (per day) of consumption of SLT (n=70)

Type of smokeless tobacco	Frequency of consumption of smokeless tobacco					Statistics
	1-3 f (%)	4-6 f (%)	7-9 f (%)	>9 f (%)	Total	
Zarda	11 (19.6%)	35 (62.5%)	6 (10.7%)	4 (7.1%)	56 (100%)	Mean±SD =5.30±2.343 Min = 2 Max = 15
Sadapata	5 (20.0%)	17 (68.0%)	1 (4.0%)	2 (8.0%)	25 (100%)	Mean±SD =5.04±1.859 Min = 3 Max = 10
Gul		3 (100%)			3 (100%)	Mean±SD =5.0±1.0 Min = 4 Max = 6
Khoini	6 (18.8%)	20 (62.5%)	2 (6.3%)	4 (12.5%)	32 (100%)	Mean±SD =5.38±2.685 Min = 2 Max = 15

*multiple responses present

Among the respondents consuming SLT, 47 (67.1%) said that they suffered if they didn't consume SLT (fig- 3) among them (n=47), the majority i.e. 39 (43.3%) suffered from sour taste feeling followed by 20 (22.2%) from bitter taste feeling, 13 (14.4%) from nausea, 11(12.2%) suffered from toothache, and rest 7 (7.8%) from abdominal discomfort (fig-4).

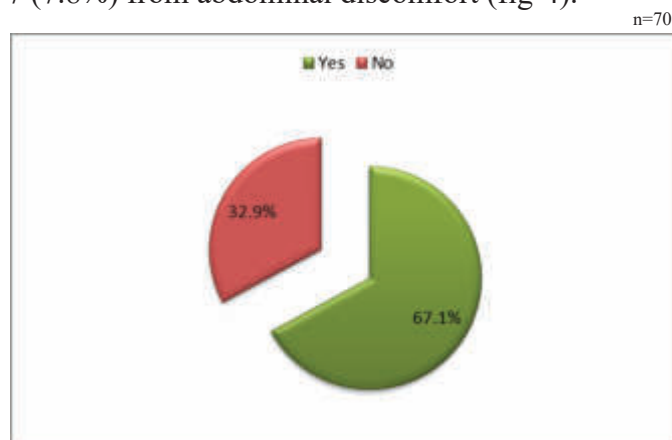
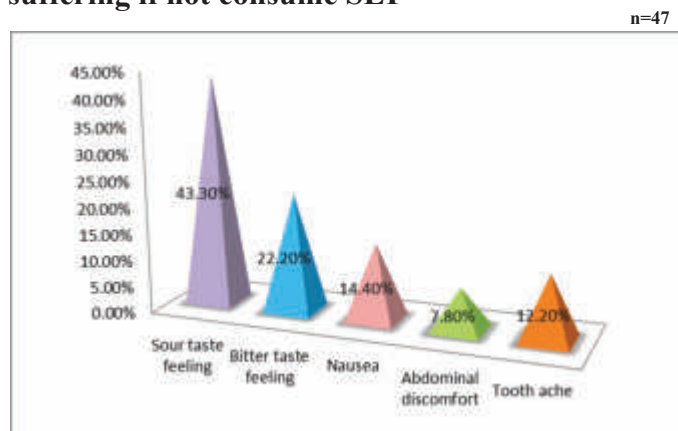


Fig -3: Distribution of the participants by suffering if not consume SLT



***Multiple responses present**

Fig - 4: Distribution of the participants by type of sufferings Attitudes toward smokeless tobacco (SLT):

Among the 288 respondents, 269(93.4%) believed that SLT use is not acceptable for women in society, 277(96.2%) accepted that women using SLT harms their health, 273(94.8%) said that smokeless tobacco is addictive and 245(85.1%) thought that SLT is less harmful than cigarettes.

Table-4: Distribution of the participants by attitudes toward smokeless tobacco (SLT)

Attitude towards smokeless tobacco (SLT) consumption n=288	Frequency	Percentage
Acceptable for women to use smokeless tobacco		
Yes	19	6.6%
No	269	93.4%
A woman who uses smokeless tobacco harms her health		
Yes	277	96.2%
No	11	3.8%
Smokeless tobacco is addictive		
Yes	273	94.8%
No	15	5.2%
Smokeless tobacco is less harmful than cigarettes		
Yes	245	85.1%
No	43	14.9%

***multiple responses present**

DISCUSSION:

In this study, among the total 288 participants, the majority i.e. 37.5% were in the age group of <30 years with a mean age of 38.88 ± 14.169 years which is slightly higher than the mean age of another study (38.5 ± 15.3 years) conducted among rural married women in Bangladesh¹⁰. Regarding educational qualification, the majority (27.8%) of our study participants were educated up to secondary level whereas in another study in an urban slum in Bangladesh, 51.5% of participants had no formal education¹¹. Possibly this dissimilar finding from the current study was due to the study done in an urban slum but the current study was done in a rural residence. Almost all the participants i.e., 96.5% were housewives which is inconsistent with another study in Bangladesh, where less than half (40.9%) participants were housewives¹².

Our study revealed that 24.3% of participants consumed smokeless tobacco (SLT), among them almost half (48.3%) of the participants consumed

Zarda and 37.5% of Zarda consumers had been consuming it for 6-10 years. Other studies demonstrated that 52.53% rural women consumed Zadra¹³ and 57.3% used SLT for the duration of 5-7 years¹. Both study findings regarding the duration of SLT use are nearly similar.

According to our study, about two-thirds i.e., 62.5% of the SLT users were used to consuming Zarda 4-6 times per day which is very close to another study result in India which revealed 55.3% of people chewed tobacco 5 and above times per day¹⁴.

Our study demonstrates, 6.6% of respondents believe that SLT use is not acceptable for women which is slightly higher than another study conducted in Ethiopia (2.1%)¹⁵. Most of the study participants agreed that 'women who use smokeless tobacco harm her health' (96.2%), 'smokeless tobacco is addictive' (94.8%) and many of our study population (85.1%) had a misconception that SLT is less harmful than cigarettes which is also almost similar to the study in Ethiopia¹⁵.

Conclusion

Smokeless tobacco is frequently used by rural women in our country as it is inexpensive, easily accessible and its use is accepted by their family. According to the findings of the study, about one-fourth of the participants consumed SLT and many of them had been consuming zarda, sadapata, gul and khoini for the duration of six to ten years. The attitude of the participants towards SLT was satisfactory but further evaluation is needed especially about the pattern of SLT to reduce health hazards due to SLT. To lessen the consumption of SLT, more research and awareness program should be conducted.

CONFLICT OF INTEREST:

Authors are free from any potential conflict of interest.

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