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Smoking Habit of Rural Population of Selected Villages of Gazipur District

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ABSTRACT

Background: *Tobacco consumption is a global public health burden and in Bangladesh, awareness and cessation support is very low particularly for rural population. Objectives This study was conducted to examine the smoking behavioral and associated factors among rural population of selected villages in Gazipur District.* ***Objectives:*** *To assess smoking behavior, prevalence, influencing factors, and knowledge regarding tobacco use among rural populations in Gazipur District, Bangladesh.* ***Methods:*** *A descriptive cross-sectional study was conducted among the 420 rural respondents selected through purposive sampling technique. Structured interviewer-administered questionnaires were used to collect the data. The variables included socio-demographic characteristics, smoking status, pattern of smoking, factors affecting smoking behavior, spending and adverse impact-related knowledge.* ***Results:*** *A total of 420 members responded, out of which 75 (71.4%) were smokers and 30 (28.6%) were non-smokers. Approximately one-third of respondents were aged between 18–27 years (33.3%), and more participated as male (86.9%). 76.7% of smokers reported daily smoking behavior, and 78.3% consumed 1–10 sticks per day. The strongest influence for start smoking easily was friends (93.3%), and the reason to smoke most commonly was "just fun" (43.3%) and habit (30%). Of them, a high percentage of 68.3% had tried to stop smoking at least once.* ***Conclusions:*** *The overall smoking prevalence was higher in rural area of Gazipur particularly among young adult males. Despite prevalent awareness of health risks, smoking behavior is sustained by peer effect and recreational motivation. Developing cessation support and tailored community awareness interventions for them would be effective in preventing rural tobacco use.*

Keywords: *Smoking habit, Tobacco use, Rural population, Smoking prevalence, Nicotine addiction*

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INTRODUCTION

Tobacco Dependence Refugee or migrant health Tobacco is one of the leading causes of preventable morbidity and mortality globally. According to the World Health Organization, tobacco kills more than eight million people each year with an estimated 80% of these smokers reside in low- and middle-income countries where the tobacco epidemic is at its greatest [1]. Smoking is associated with various diseases (lung cancer, chronic obstructive pulmonary disease (COPD), cardiovascular disease and stroke; other cancers) [2, 3]. Among the South Asian countries, Bangladesh has one of the highest incidences of tobacco consumption. The rural population with low access to health knowledge, poor accessibility to healthcare service, cultural acceptance of smoking behavior and lower educational attainment also makes them more vulnerable [4,5]. Bangladesh introduced strict regulation against tobacco, such as smoking ban in public places; however, tobacco use is still culturally recognized and especially among male individuals from rural background [6]. Smoking is more common among people with low socioeconomic status and little education [4,7]. Research indicates that initiation among rural men is often triggered by curiosity and social gatherings, followed by addiction. Despite having tobacco control laws to prohibit public smoking and advertising, mainly compliance and enforcement is poor in rural areas [3,6]. With Smoking still somewhat accepted socially especially amongst male adults. In-depth studies in India and Nepal found higher smoking prevalence among males 18–45 years of age, with the highest prevalence rates for farmers, day laborers (including construction workers), transport workers, and small business owners. Smokers know the risks that are associated with smoking but still continue due to habitual, stress reliever and social connectivity [5,8]. Gazipur District a rapidly industrializing area near Dhaka, it is a transitional space where rural and semi-urban communities exist side by side. Men in rural villages are generally known as smokers because of the popularity of smoking from an early age, peer pressure to start smoking, curiosity, social recreation with friends or peers and provide stress relief [8,9]. Smoking typically starts in adolescence and young adulthood worldwide. The most prominent reasons for smoking initiation in youth are peer influence, curiosity, stress reduction and belief of social acceptance [2,4]. Studies from such countries show that low awareness of health risks, difficulty finding information, and weak law enforcement for tobacco control [3,10] are factors contributing to the continuing smoking. Since smoking is common and often starts early among rural populations, population-based studies of smoking use, determinants thereof, and related knowledge are urgently needed to guide the design of effective health education interventions and cessation programs.

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METHODS & MATERIALS

The descriptive cross sectional study was performed on rural population of some selected villages in Gazipur District, Bangladesh from Augusts 2025 to January 2026. The study area is a rural–semi-urban transitional environment with different socio-demographics respectively. The study included a total of 420 participants aged 18 years and more. Sample Size was determined on the basis of feasibility.

Inclusion Criteria:

- All the Respondents from and above 18 years and above.
- Both smokers and non-smokers.
- Permanent residents of the selected villages.

Exclusion Criteria:

- The patients who were severely ill.
- Person who disagreed to provide necessary information.
- Visitors or temporary residents

Data Collection

At first, the purpose of the study was explained to the respondents so that they could understand the aim of the study. Data were collected through face-to-face interviews conducted by trained data collectors.

Data presentation and analysis

After collection of data they were checked verified and edited manually to reduce errors. Master table was prepared first then tabulation of data was performed by using scientific calculator. Manually tables were rechecked made analysis for result.

RESULT

Table I depicts that a large number of 140 (33.3%) respondents were aged between 18-27 years and majority of the respondents (130, 31.0 %) were in the age limit of 38-47 years. Out of 4189 respondents, a study base, we obtained the least number of responses from individuals aged 68–77 which was only 10 (2.4%). Males and females comprised 86.9% and 13.1% of respondents respectively. Three hundred sixty (85.7%) were Muslim in faith. Hindu scored 45 (10.7%), Christian,15 (3.6%). The majority 285 (67.9%) of study participants were married, 120 (28.6%) unmarried and 15 (3.6%) divorced respectively Bar chart interpretation It can be seen from the Bar chart most 28.57% of respondents were study in class VI-X, 21.43% were study in class I-V, & 5.95% no education related to lvls childhood level education. The others were a different educational level. Business SectorRelated articles: Majority 85 (20.2%) of Respondents were in Business. 7.1% were self-employed; 14.3% processed with and allotted data within some more services being also workforce friendly along consultancy or cooperation partner management activities (out of these statutory 1470 people who make preparatory legislative requests). Monthly income of the respondents was 20000 Tk in only75(17.9%).

Table I: Distribution of respondents according to age (*n*=420)

Age group	Number of respondents	Percentage (%)
18-27	140	33.3
28-37	75	17.9
38-47	130	31.0
48-57	35	8.3
58-67	30	7.1
68-77	10	2.4
Total	420	100.0
Sex		
Male	365	86.9
Female	55	13.1
Religion		
Muslim	360	85.7
Hindu	45	10.7
Christian	15	3.6
Total	420	100.0
Marital status		
Unmarried	120	28.6
Married	285	67.9
Divorced	15	3.6
Total	420	100.0
Education Level		
No formal education	25	5.95%
I–V class	90	21.43%
VI–X class	120	28.57%
SSC/Equivalent	70	16.67%
HSC/Equivalent	8	11.90%
Graduate or more	65	15.48%
Occupational status		
Household work	55	13.1
Farmer	40	9.5
Service	60	14.3
Business	85	20.2
Day laborer	45	10.7
Student	55	13.1
Rickshaw puller	50	11.9
Unemployed	30	7.1
Total	420	100.0

Monthly income		
<5000	110	26.2
5000 -10000	75	17.9
10000 -15000	105	25.0
15000 – 20000	55	13.1
> 20000	75	17.9
Total	420	100.0

Table II shows that majority 195 (46.4%) of the respondents live in pucca houses, 175 (41.7%) of the respondents live in tin shed and 50 (11.9%) of the respondents live in thatched houses.

Table II: Distribution of respondents according to their type of housing (*n*= 420)

Type of housing	Number of respondents	Percentage (%)
Thatched	50	11.9
Tin shed	175	41.7
Pucca	195	46.4
Total	420	100.0

Table III shows that the majority 300 (71.4%) of the respondents were smoker and 120 (28.6%) were non-smoker.

Table III: Distribution of respondents according to their smoking habit (*n*= 420)

Smoking habit	Number of respondents	Percentage (%)
Yes	300	71.4
No	120	28.6
Total	420	100.0

Table IV shows that majority 230 (76.7%) of the respondents smoke daily and 70 (23.3%) smoke occasionally.

Table IV: Distribution of respondents according to their pattern of smoking (*n*= 300)

Pattern of smoking	Number of respondents	Percentage (%)
Daily	230	76.7
Occasionally	70	23.3
Total	300	100.0

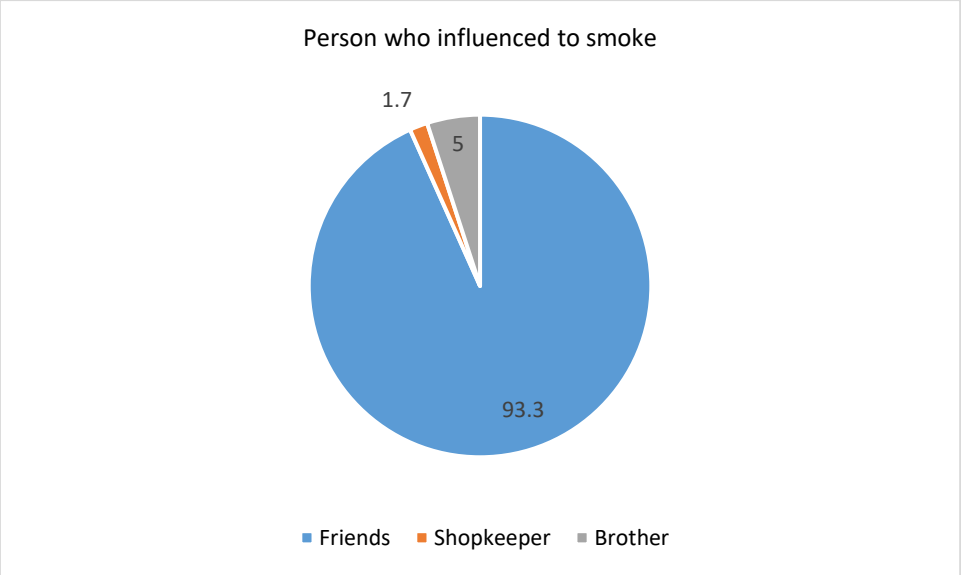

Figure 1: Distribution of respondents according to persons who influenced them to smoke (*n*=300)

Figure 1 shows that the majority 280 (93.3%) of the respondents were influenced by their friend to smoke, 5 (5%) were influenced by brother and 5 (1.7%) were influenced by shopkeeper.

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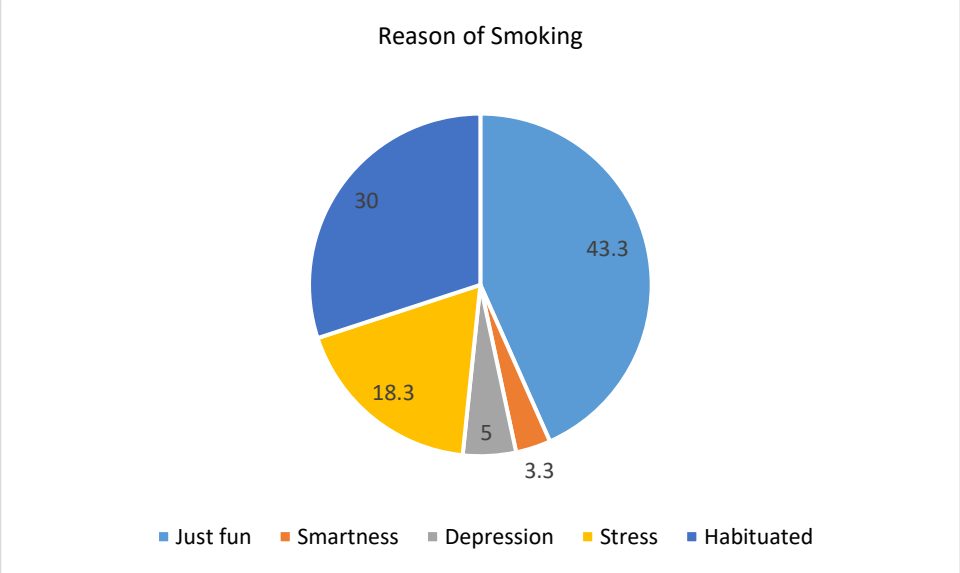

Figure 2: Distribution of respondents according to the reasons of smoking (*n*= 300)

Figure 2 shows that the majority 130 (43.3%) of the respondents were smoke for just fun, 30% have developed habit and 3.3% for smartness. *Table V* shows that the majority 235 (78.3%) of the respondents smoked 1-5 sticks per day, 10% of the respondents smoked 21-30 sticks per day and 3.3% of the respondents smoked 31-40 21-30 sticks per day.

Table V: Distribution of respondents according to the number of sticks taken per day (*n*= 300)

Number of sticks taken per day	Number of respondents	Percentage (%)
1-10	235	78.3
11-20	25	8.3
21-30	30	10.0
31-40	10	3.3
Total	300	100.0

Table VI shows that the majority 205 (68.3%) of the respondents tried to stop smoking.

Table VI: Distribution of respondents who tried to stop smoking (*n*= 300)

Respondents tried to stop smoking	Number of respondents	Percentage (%)
Yes	205	68.3
No	95	31.7
Total	300	100.0

Table VII shows that the majority 115 (38.3%) of the respondent spent between 51-100 Tk daily on smoking. 28.3% of the respondent spent less than 50 Tk daily on smoking and 11.7% of the respondent spent between 151-200 Tk daily on smoking.

Table VII: Distribution of respondents according to the average monthly expenditure on smoking (*n*= 300)

Average monthly expenditure	Number of respondents	Percentage (%)
<50	85	28.3
51-100	115	38.3
101-150	65	21.7
151-200	35	11.7
Total	300	100.0

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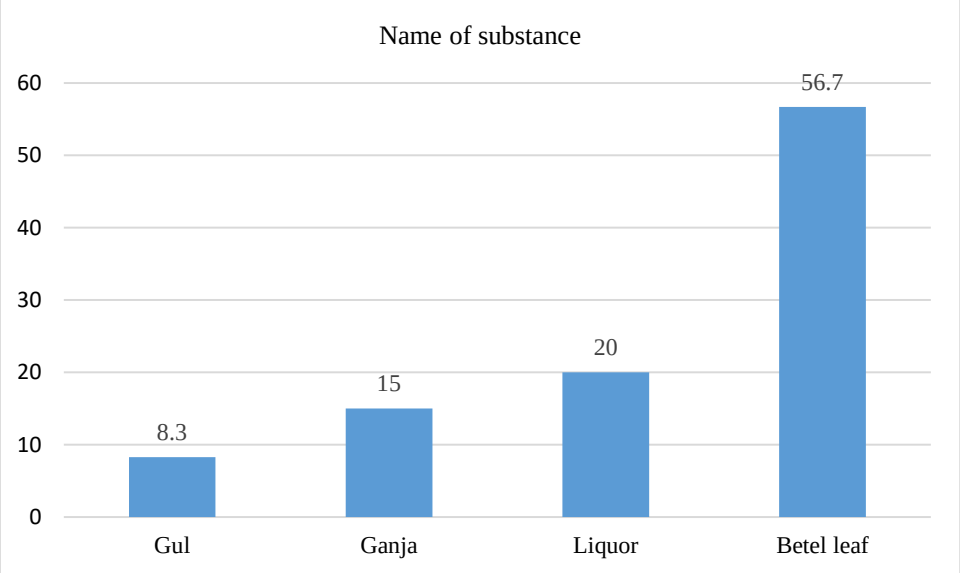

Figure 3: Distribution of respondents according to the habit of taking other substance (*n*= 300)

Figure 3 shows that the majority 170 (56.7%) of the respondents consumed betel leaf, 20% of the respondents consumed liquor and 8.3% of the respondents consumed gul.

Table VIII: Distribution of respondents according to their knowledge related to smoking (*n*= 420)

Knowledge related to Smoking	Number of respondents	Percentage (%)
Smoking is harmful for health	420	100.0
Banned in public in Bangladesh	320	76.2
Harmful ingredient of tobacco is nicotine	345	82.1
Nicotine can cause cancer	390	92.9
Harmful for cardiovascular and respiratory system	360	85.7
Smoking cause loss of appetite	295	70.2

Table VIII shows that the majority 100% of the respondent knew that smoking is harmful for health, where as 76.2% knew that it is banned in public in Bangladesh, 82.1% knew harmful ingredient of tobacco is nicotine, 92.9% knew nicotine can cause cancer, 85.7% knew it is harmful for cardiovascular and respiratory system and 70.2% knew smoking can cause loss of appetite.

DISCUSSION

This study was conducted to assess the smoking habits and correlates of smoking among rural communities in selected villages of Gazipur District. This study gives useful insight on the prevalence, smoking behaviour, determinants and knowledge of smoking among rural Bangladeshi people. Very few studies exist that examine the association between SUDs and tobacco use amongst this population, to the best of our knowledge no Previous work shows a high prevalence where up to 71.4% (n =100) were smokers compared to a simplified national estimate from the Global Adult Tobacco Survey for the entire population group of 35% [11]. The higher rate seen here might be attributable to rural setting, greater cultural acceptance, and robust peer effects on behaviour among the young men. The high percentage of male smokers (86.9%) confirms earlier research about the prevalence of tobacco use among males in rural Bangladesh due to socio-cultural norms and smoking being socially acceptable for a man [4,7]. The age group that had the largest number of smokers were aged 18–27 years (33.3%) indicating that smoking initiation occurs very early in life. These trends are similarly reflected elsewhere in South Asia where smoking initiation and uptake mostly happen during adolescence or young adulthood [12]. Initiating smoking early may be influenced by peer group exposure, lack of parental monitoring and fewer school-based awareness intervention programs in rural areas. Higher smoking prevalence was noted in respondents with lower education and lower income. Hearing about smoking is consistent with global and national evidence demonstrating strong associations between poverty, limited education and tobacco use [1,4,9]. Individual smokers with low incomes use tobacco to cope with psychological distress or economic hardship. In terms of occupation, similar proportions of smokers were observed among businessmen (20.2%), service holders (14.3%) and day laborers (10.7%) involved in regular social contact or physical exertion Associations between hand labor and smoking have also been reported from India and Nepal [5,12]. Of these, 76.7% smoked daily, 78.3% had smoked 1–10 sticks a day. This is unwelcome news, since despite some smoke fewer than a pack every day, tobacco use is an entrenched habit. Similar findings (70–80% daily users) have been reported from rural India and Nepal [12]. This persistence is most likely due to the easy access and cheap price of cigarettes and bidis at local shops in villages. Peer pressure became the most prevalent one reporting (93.3%) that it was friends who had encouraged him to begin smoking The observation of this holds true for the social learning theory which says that one learn behavior by observing and imitating peer group [4]. The three top self-reported motivations for smoking were “just because its fun” (43.3%), habit (30%) and stress (18.3%). The inside job echo

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previous Bangladeshi studies where smoking is more associated with social and recreational purposes than health risk [8,9]. At least, 68.3% of smokers managed to make one quitting attempt prior to joining the study, which is a positive sign. Yet, the high recurrence rate indicates that rural health systems are poorly designed to support cessation. Quitting is difficult due to nicotine dependence, lack of structured counseling, and reinforcement from social circles [3,6]. Similar evidence from community interventions in other contexts has shown that smoking cessation is most effectively achieved with ongoing counseling and pharmacological assistance [10]. Although awareness of the negative impact of smoking (100%) and that nicotine is carcinogenic (92.9%) was observed, a high prevalence of smoking is present in the population under study. This highlights the knowledge-behaviour gap often documented by behavioural-change researchers [8,9]. Addiction, normalization of smoking behavior in the community and a low sense of personal vulnerability may account for high awareness but low behavior change. These results indicate that knowledge alone is not enough to change ingrained behaviors. Total reductions will be meaningful only via multifaceted approaches that combine tactics, including motivational interviewing, peer-led interventions, and strict policy enforcement in a non-adversarial manner [1,4,5,6].

CONCLUSION

Conclusions Smoking behaviour in rural community is determined by social influence, cultural acceptability and poor cessation support rather than knowledge alone. Thus, appropriate interventions need to be beyond education, to tackle social norms, peer pressure and availability of affordable cessation services in rural communities of Bangladesh.

FUNDING

No funding source.

CONFLICT OF INTEREST

None declared

ETHICAL CONSIDERATION

The study was approved by ethical review committee.

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