ORIGINAL ARTICLE

Tobacco Quitting Intention Among Rural People Living at Narayanganj District, Bangladesh

Md. Nazmul Hossain[1], Ashiqur Rahman[1], Abdullah Affan[2], Md. Golam Sharower[3]

ABSTRACT

Bangladesh is ranked among the top ten countries with the heaviest smoking burdens globally. The country has a high adult smoking prevalence, with an estimated 21.9 million adults currently using tobacco products. This study aims to determine the intention to quit tobacco and its related factors among rural people of Bangladesh. This descriptive, cross-sectional study was conducted from January to December of 2023, at Kutubpur Union under Narayanganj Sadar Upazilla of Narayanganj District, Bangladesh. A total of 385 adult male tobacco users from a participated in this study. We adopted a convenience sampling technique. More than half of the respondents (51.4%) expressed an intention to quit tobacco use within the next 12 months. Among the respondents 46.2% had tried to stop smoking in the past 12 months. In terms of smoking patterns, 45.5% of participants smoked 5-10 cigarettes per day and 24.4% also used smokeless tobacco. The initiation of smoking was predominantly at a young age, with 84.94% starting between 15-20 years old. Exposure to anti-smoking messages was common, with television being the primary source (66.8%), followed by social networks (19.7%). Knowledge of tobacco control laws was limited, with 53% of respondents reporting they were unaware of such laws. However, a majority (95.6%) had noticed the health warnings on cigarette packages. Regarding beliefs and social influences, most participants believed that cigarette smoking causes serious illness (77.1%). Family pressure to quit smoking was reported by 56.4% of respondents. In contrast, only a small fraction (13.8%) had ever received advice from a doctor to quit smoking. At the workplace, smoking was not allowed for 49.9% of the respondents, while 34% reported having no specific smoking rules.

Keywords: Tobacco smoking, tobacco quitting, anti-smoking campaign, rural people, Bangladesh

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INTRODUCTION

Tobacco use stands as one of the most significant global public health challenges, recognized as the leading cause of preventable death worldwide.[1] The tobacco epidemic represents a catastrophe larger than most other public health disasters humanity has faced.[2] A substantial portion of the global burden of tobacco-related mortality is concentrated in low- and middle-income countries.[3] Currently, approximately 1.3 billion people smoke worldwide, resulting in millions of deaths annually.[4] It is projected that unless effective interventions are implemented, tobacco could claim up to one billion lives during this century, with 80% of these deaths occurring in developing nations.[5] The health benefits of quitting smoking are profound and begin almost immediately, regardless of the duration or timing of cessation.[6] Cessation reduces the risk of a multitude of adverse health outcomes, including cardiovascular diseases, chronic

1. Department of Health Education, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka-1212, Bangladesh.
2. Department of Maternal and Child Health, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka-1212, Bangladesh.
3. Department of Entomology, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka-1212, Bangladesh.

Correspondence to: Dr. Md. Nazmul Hossain, Department of Health Education, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka-1212, Bangladesh. Email: nhossain9395@gmail.com

obstructive pulmonary disease (COPD), various cancers, and poor reproductive health outcomes.[7] Consequently, promoting smoking cessation is a critical component of comprehensive tobacco control strategies and is essential for reducing the burden of non-communicable diseases, which account for 71% of all deaths globally.[8]

Bangladesh is ranked among the top ten countries with the heaviest smoking burdens globally.[9] The country has a high adult smoking prevalence, with an estimated 21.9 million adults currently using tobacco products.[10] This high usage rate leads to a devastating toll, with tobacco use being responsible for nearly 57,000 deaths and 1.2 million tobacco-attributable illnesses annually.[11] The resulting health and economic burdens on the nation are increasing rapidly, underscoring the urgent need for effective cessation interventions.[12] Intention to quit smoking is a crucial precursor to actual quitting behavior and is considered the first step in the process of behavioral change.[13] This intention is not uniform across all smokers and is influenced by a complex interplay of factors. Previous research has indicated that the intention to quit is more frequent among older smokers, those with higher education levels, individuals with knowledge of the harmful effects of smoking, and those exposed to anti-smoking messages through mass media.[14,15] Conversely, factors such as heavier smoking intensity and a lack of interest in receiving cessation advice are associated with a lower likelihood of intending to quit.[16]

While several studies have explored smoking habits and quit attempts in Bangladesh,[17,18] there remains a gap in understanding the specific determinants of quit intentions, particularly within rural communities. Rural populations may face unique socioeconomic and cultural barriers to cessation that are not fully captured in national-level data. Studies in other contexts have identified factors such as family pressure, advice from healthcare providers, workplace smoking policies, and attitudes towards tobacco control measures (e.g., taxation) as significant correlates of quit intentions.[19,20] Therefore, we proposed this study to determine the intention to quit tobacco and its related factors among rural people in Bangladesh. The findings will contribute valuable evidence to inform the design of targeted, effective and culturally appropriate tobacco cessation programs and policies for this vulnerable population.

METHODS

This descriptive, cross-sectional study was conducted from January to December of 2023, at Kutubpur Union under Narayanganj Sadar Upazilla in Narayanganj District, Bangladesh. A Union is the smallest rural administrative and local government unit, making this location representative of a rural Bangladeshi community. The study population consisted of adult male tobacco users aged 18 years and above, residing in the selected rural area.

Our inclusion criteria were: i) male gender, ii) age 18 years and above, iii) current user of any tobacco product (smoked or smokeless), and iv) willingness to provide informed written consent. Seriously ill individuals who were unable to participate in the interview were excluded from the study. A convenience sampling technique was employed to recruit participants from the study area. Data was collected through face-to-face interviews using a pre-tested, semi-structured questionnaire. The questionnaire was initially developed in English, translated into Bengali and then back-translated to ensure consistency.

The collected data was compiled, coded, and entered into Microsoft Excel. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 27.0 for Windows.

RESULTS

A total of 385 adult male tobacco users from a rural community in Bangladesh participated in this study. The sociodemographic profile of the respondents is summarized in Table 1. The majority of participants (56.4%) were young adults aged 18-30 years. On religious ground, the vast majority was Muslim (96.3%). More than half of the respondents (56%) were married. Regarding education, 20.5% were illiterate, while 30.9% had secondary and 28.3% had higher secondary level education. The most common occupations were: service holders (29.9%), businessmen (22.3%), and students (22.1%). Most participants lived in nuclear families (83.1%) with more than three family members (65.1%). Nearly half (45.0%) reported a monthly family income exceeding 20,000 BDT. The type of residence for most participants was semi-pucca (58.7%). The findings related to quitting intention are presented in Table 2. Slightly more than half of the respondents

(51.4%, n=198) expressed an intention to quit tobacco use within the next 12 months. Among the respondents 46.2% (n=178) had tried to stop smoking in the past 12 months. Various factors associated with smoking cessation are detailed in Table 3. In terms of smoking patterns, 45.5% of participants smoked 5-10 cigarettes per day and 24.4% also used smokeless tobacco. The initiation of smoking was predominantly at a young age, with 84.94% starting between 15-20 years old. Exposure to anti-smoking messages was common, with television being the primary source (66.8%), followed by social networks (19.7%). Knowledge of tobacco control laws was limited, with 53% of respondents reporting they were unaware of such laws. However, a majority (95.6%) had noticed the health warnings on cigarette packages. Regarding beliefs and social influences, most participants believed that cigarette smoking causes serious illness (77.1%) and that they were addicted to cigarettes (67.8%). Family pressure to quit smoking was reported by 56.4% of respondents. In contrast, only a small fraction (13.8%) had ever received advice from a doctor to quit smoking. At the workplace, smoking was not allowed for 49.9% of the respondents, while 34% reported having no specific smoking rules.

Table 1: Sociodemographic characteristics of respondents (n=385)

Characteristics	Frequency	Percentage
Age group (in years)		
18-30	133	56.4
31-42	103	19.5
43-54	64	13.2
>55	42	10.9
Religion		
Islam	371	96.3
Hinduism	11	2.9
Christianity	3	0.8
Marital status		
Married	212	56
Unmarried	168	44
Educational status		
Illiterate	79	20.5
Secondary	119	30.9
Higher Secondary	109	28.3
Bachelors	51	13.2
Masters and above	27	7.1
Occupation		
Service holder	115	29.9
Businessman	86	22.3
Day labourer	67	17.4
Farmer	22	5.7
Student	85	22.1
Others	10	2.6
Family type		
Nuclear family	320	83.1
Joint family	65	16.9
Number of family members		
2-3 person	134	34.9
More than 3 persons	251	65.1
Monthly family income (in BDT)		
10,000-15,000	123	32.0
16000-20,000	89	23.0
> 20,000	173	45.0
Type of residence		
Katcha	10	2.6
Semi Pucca	226	58.7
Pucca	149	38.7

Table 2: Smoking cessation intention of the respondents (n=385)

Characteristics	Frequency	Percentage
Intention of respondent to quit smoking with in next 12 month		
Yes	198	51.4
No	187	48.6
Tried to stop smoking in past 12 month		
Yes	178	46.2
No	207	53.8

Table 3: Factors related to smoking cessation intention the respondents (n=385)

Characteristics	Frequency	Percentage
Number of smoking cigarette per day		
Less than 5	81	21.1
5-10	175	45.5
More than 10 upto a full packet	96	24.9
A full packet or more	33	8.5
Use smokeless tobacco		
Yes	94	24.4
No	291	75.6
First smoking age		
15-20 Years	327	84.94
More than 20 Years	58	15.06
Source of receiving anti-smoking message		
Newspaper	52	13.5
Television	257	66.8
Social network	76	19.7
Know about tobacco control law		
Know	181	47
Don't know	204	53
Noticed health warning on cigarette package		
Noticed	368	95.6
Didn't noticed	17	4.4
Belief of cigarette addiction		
Addicted	261	67.8
Not addicted	124	32.2
Belief of cigarette cause serious illness		
Yes	297	77.1
No	88	22.9
Family pressure to quit smoking		
Have pressure	271	56.4
Have no pressure	168	43.6
Received advice from doctor to quit smoking		
Received advice	53	13.8
Didn't received advice	332	86.2
Smoking policy at workplace		
Allowed	62	16.1
Not allowed	192	49.9
No rules	131	34

DISCUSSION

The present study aims to determine the intention to quit tobacco and its related factors among rural male tobacco users in Bangladesh. The findings reveal that just over half of the respondents (51.4%) expressed an intention to quit within the next 12 months, while a similar proportion (46.2%) had made a quit attempt in the past year. This indicates a substantial, yet untapped, potential for smoking cessation interventions in this population, as intention is a crucial precursor to actual quitting behavior.[13]

The prevalence of quit intention in this rural sample appears to be influenced by a complex interplay of knowledge, social pressure and environmental factors. A high proportion of participants were aware of the harms of smoking, with 77.1% believing it causes serious illness and 67.8% considering themselves addicted. Furthermore, an overwhelming majority (95.6%) had noticed the health warnings on cigarette packages. This high level of awareness, likely influenced by anti-smoking messages primarily received through television (66.8%), creates a necessary foundation for cessation efforts.[1,15]

However, knowledge alone may not be sufficient to drive behavior change. This study identified several key factors that were potentially associated with quit intention. The significant role of social influence is evident, as 56.4% of respondents reported family pressure to quit. This aligns with studies in other contexts that have identified perceived social pressure as a significant correlate of quit intentions.[19] In contrast, the role of healthcare providers appears markedly underutilized; only 13.8% of participants had ever received advice from a doctor to quit. This represents a critical missed opportunity, as advice from healthcare providers is a recognized and effective component of cessation strategies.[7]

Environmental factors also seem to play a role. Nearly half of the respondents (49.9%) reported that smoking was not allowed at their workplace, which may create a supportive environment for cessation attempts. Previous research has indicated that workplace smoking policies can be a significant correlate of quit intentions.[19,20] Conversely, certain barriers are evident. The early initiation of smoking, with 84.94% starting between 15-20 years of age, establishes a long-term addiction that is difficult to break. Additionally, the limited knowledge of tobacco control laws (53% were unaware) suggests that government policies may not be effectively reaching this rural community, potentially diminishing their impact on cessation behaviors. This study has limitations. The use of convenience sampling may limit the generalizability of the findings beyond the study area. Furthermore, the cross-sectional design identifies associations but cannot establish causality between the factors and quit intention.

CONCLUSION

To conclude, this study found a moderate level of intention to quit smoking among rural male tobacco users in Bangladesh. The findings suggest that cessation strategies for this population should be multi-faceted. Efforts should capitalize on the existing high awareness by reinforcing anti-smoking messages through mass media, particularly television. Interventions should also actively engage family members to create a supportive home environment and must better healthcare system to ensure that providers routinely offer cessation advice. Finally, strengthening the dissemination and enforcement of tobacco control laws in rural areas is essential to create a comprehensive policy environment that supports and motivates quit attempts.

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Authors' Contribution: Concept and design: MNH, MGS; Questionnaire formulation: MNH, MGS; Data collection, compilation, coding and analysis: MNH, AR, AA; Manuscript preparation, editing, review and final submission: MNH, AR, AA, MGS.

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