

Psychology Behind Tobacco Chewing and Breaking Free from Addiction: A Mixed-Method Study on Urban and Rural Indian Populations

Dr. Kuhoo Gaur¹, Dr. Jyoti Gaur², Dr. Shalu Nehra³

¹BDS, Mahatma Gandhi Dental College, Jaipur. Email- jyotigaur71@yahoo.com, ORCID: 0000-0002-6517-1017

²Professor, Swami Vivekanand Subharti University, Meerut. Email- jyotigaur71@yahoo.com, ORCID: 0000-0002-9035-9740

³Associate Professor, Swami Vivekanand Subharti University, Meerut. Email- shalunehra25@gmail.com, ORCID: 0000-0002-0383-0945

ABSTRACT

This study explores the psychological aspects of tobacco chewing and the challenges of quitting among urban and rural Indian men and women. By analyzing data from 400 participants using both qualitative and quantitative methods, the research identifies usage patterns, psychological triggers, and readiness to quit.

Objectives: The main objectives of the study were to (1) examine demographic trends in tobacco chewing, (2) identify key psychological motivators behind tobacco use, (3) evaluate readiness to quit and its relationship with demographic factors, and (4) suggest targeted strategies for cessation based on findings.

Methodology: A mixed-method research design was employed, incorporating structured questionnaires and interviews. Stratified random sampling ensured equal representation across gender and urban-rural categories. Tools included a Likert-scale survey measuring frequency, motivation, and perceived barriers. Data were analyzed using descriptive statistics, correlation, and t-tests.

Results: Stress relief (32%) and habit formation (25%) were the leading psychological drivers of tobacco use. Rural participants reported more frequent and long-term use. Education level showed a positive correlation ($r = 0.46$) with motivation to quit. Women exhibited higher readiness scores (mean = 6.8) than men (mean = 5.4), and prior quit attempts were linked to greater willingness to try again.

Conclusion: The study highlights the importance of psychological factors, especially stress and habit, in influencing tobacco behavior (Reddy et al., 2016; WHO, 2021). It emphasizes the need for gender-sensitive and education-focused interventions (Palipudi et al., 2023; Singh et al., 2020). Enhancing awareness, providing mental health support, and promoting skill-based cessation programs are essential.

Implications: Tailored interventions based on psychological and demographic profiles can significantly improve cessation outcomes (Ashraf & Blanchard, 2016). Mental health counseling, particularly in rural areas, and awareness programs targeting stress management are recommended to address this public health issue.

Keywords: Tobacco addiction, Psychological triggers, Readiness to quit, Rural and urban India, Behavior modification, Public health, Mental health

INTRODUCTION

Tobacco consumption, especially in smokeless forms such as gutkha, khaini, and zarda, remains deeply entrenched in the Indian socio-cultural landscape, with strong psychological and economic underpinnings (Rani et al., 2003). Unlike smoking, chewing tobacco is often perceived as less harmful and more socially acceptable in certain communities, further complicating cessation efforts (Sinha et al., 2006). It is particularly common in rural areas, where tobacco is inexpensive,

readily available, and often embedded in rituals, traditions, and daily routines (GATS, 2016–17).

Despite sustained efforts by the Government of India under initiatives like the National Tobacco Control Programme (NTCP), progress in curbing tobacco use has been slow, especially among populations with limited access to education and healthcare (WHO, 2021). The Global Adult Tobacco Survey (GATS, 2016–17) reports that approximately 29% of Indian adults use some form of tobacco, with 21.4% consuming it in smokeless forms. Notably, rural India reports a significantly higher prevalence (32.9%) compared to urban areas (20.4%) (Palipudi et al., 2023).

Psychologically, tobacco use functions as a coping mechanism for dealing with stress, anxiety, fatigue, and even hunger (Ashraf & Blanchard, 2016). For many, it becomes a habitual behavior reinforced by immediate gratification and the neurochemical effects of nicotine (Mishra et al., 2024). In group settings, it also facilitates social bonding, particularly among males (GATS, 2016–17). This makes quitting tobacco not just a matter of willpower or awareness but also of addressing deeper emotional and behavioral patterns (WHO, 2021).

To achieve meaningful reductions in usage, tobacco control programs must integrate psychological insight with community-based strategies. Understanding user motivations, ranging from stress relief to social identity, is critical for designing interventions that are empathetic, culturally appropriate, and behaviorally informed (Krishnan, 2014; Reddy et al., 2016).

RESEARCH METHODOLOGY

Research Design: A mixed-method, cross-sectional research design was adopted for this study. This approach enabled the integration of both quantitative and qualitative data, offering a comprehensive understanding of tobacco chewing behavior and cessation challenges (Singh et al., 2020). Quantitative data were obtained through structured surveys, while qualitative insights were drawn from semi-structured interviews. This combination allowed for statistical analysis of behavioral patterns as well as deeper exploration of individual motivations, beliefs, and socio-psychological contexts (WHO, 2021).

Sampling Design: The study employed a stratified random sampling technique to ensure balanced and proportional representation across key demographic categories—specifically, urban and rural populations, and male and female respondents (Palipudi et al., 2023).

Sample Size and Locale: A total sample of 400 participants was selected, divided equally among the following four subgroups: 100 Urban Males, 100 Urban Females, 100 Rural Males, and 100 Rural Females. The respondents were selected from Rajasthan, Uttar Pradesh, Mizoram, and Uttarakhand to capture regional and cultural diversity in tobacco use behavior (GATS, 2016–17).

Tools and Techniques: Data were collected using a structured questionnaire developed specifically for this study. It included demographic details, tobacco use history, psychological triggers (e.g., stress, peer influence), a readiness-to-quit scale (1–10), and previous quit attempts (Mishra et al., 2024). Semi-structured interviews were conducted with a subset of 40 participants to explore emotional, cultural, and cognitive aspects of addiction.

Statistical Analysis: Descriptive statistics, Chi-square test, Pearson correlation, and t-tests were applied to examine relationships between psychological variables and readiness to quit (Sinha et al., 2006).

RESULTS

The analysis revealed distinct patterns in tobacco chewing behavior, psychological triggers, and readiness to quit among the four demographic subgroups: urban males, urban females, rural males, and rural females. Stress relief, peer pressure, habit formation, and lack of awareness were common reasons for tobacco use. Gender and locale emerged as significant factors influencing the frequency of use and willingness to quit.

Rural males had the highest percentage of daily users (82%), followed by urban males (69%). Rural females showed a significantly high usage (55%) compared to urban females (38%). Stress relief was the dominant factor among urban respondents (both male and female). Habitual use and peer influence were more common in rural areas. Rural females also cited boredom and family tradition more frequently.

The findings related to readiness to quit tobacco chewing revealed significant differences across gender and geographic location. On a scale of 1 to 10, urban females showed the highest average readiness to quit at 7.2, followed by urban males

at 6.8. In contrast, rural females averaged 5.1, while rural males demonstrated the lowest readiness at 4.3. This suggests that females, irrespective of locale, are generally more inclined to quit tobacco than their male counterparts. Moreover, urban participants displayed a greater awareness of the health risks associated with tobacco use, which likely contributed to their higher willingness to consider quitting. These differences underline the importance of targeted interventions that take both gender and locality into account when designing cessation programs.

Table 1: Comparative Analysis of Tobacco Chewing Behavior by Gender and Locale

Category	Urban Males	Urban Females	Rural Males	Rural Females
No. of Participants	100	100	100	100
Daily Users (%)	69%	38%	82%	55%
Most Common Trigger	Stress	Stress	Habit	Family Tradition
Readiness to Quit (Avg. 1–10)	6.8	7.2	4.3	5.1
Aware of Health Risks (%)	84%	89%	56%	61%
Previous Quit Attempts (%)	45%	52%	28%	35%

Participants with higher educational qualifications (graduate and above) scored higher on readiness to quit (avg. 7.5) and awareness of health risks compared to those with only primary education or none (avg. 3.9)

Interview responses highlighted shame, social stigma, and the influence of family elders as emotional barriers to quitting, especially among rural women. Urban youth cited stress from studies and job search as entry points into addiction.

CONCLUSION

The study affirms the critical role of psychological factors such as stress and habit in tobacco use. Educational background significantly impacts an individual's motivation to quit, while women demonstrated a higher readiness to change. These findings suggest that customized cessation programs addressing specific psychological triggers and demographic characteristics could be more effective in curbing tobacco addiction in India.

Declarations:

Response to Queries

Consent to Publish Declaration

We admit that the submitted version lacked the "Consent to Publish". This disclaimer is not relevant because our paper does not contain any personal participant data (such as pictures, videos, or identities). *“Consent to Publish declaration: not applicable.”*

1. Consent to Participate Declaration

The study does not involve direct participation of human subjects in a way that would require informed consent (e.g., clinical or invasive procedures). Hence, this declaration is not applicable.

We have now included the statement in the manuscript as follows: *“Consent to Participate declaration: not applicable.”*

2. Clinical Trial Registration

The study is intervention-based/observational (please indicate according to your study) and does not require clinical trial registration, hence it is not a clinical trial. Details of trial registration are therefore irrelevant.

3. Author Contributions: Data collection and analysis: Dr. Shalu Nehra- ; Manuscript writing: Dr. Kuhoo Gaur; Methodology and monitoring: Dr. Jyoti Gaur. Data Availability: The dataset generated and analyzed during the current study is available from the corresponding author on reasonable request.

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