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Comparative assessment of tobacco use patterns and determinants among urban slum and non-slum dwellers in Vijayawada city: A community-based cross-sectional study.

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Abstract

Background: Tobacco use remains a major public health challenge, contributing significantly to morbidity and mortality, especially among urban slum populations where socio-economic disparities prevail. Understanding the determinants and patterns of tobacco consumption in diverse urban settings is critical for effective tobacco control strategies.

Objectives: To assess and compare the determinants and patterns of tobacco use among adult male slum and non-slum dwellers of Vijayawada city.

Methods: A community-based cross-sectional descriptive study was conducted among 2008 participants (1215 non-slum and 793 slum residents) in Vijayawada. A multistage random sampling technique was used. Data on socio-demographic profile, tobacco use habits, and influencing factors were collected through a pre-tested semi-structured questionnaire. Statistical analysis was performed using SPSS version 20.0, with significance set at $p < 0.05$.

Results: The prevalence of ever tobacco users was 35.3%, with current tobacco use at 30.7%. Tobacco use was significantly higher among males (39.5%) than among females (21.5%) ($p < 0.001$). Slum residents exhibited a higher prevalence of current use (32.9%) compared to non-slum residents (29.3%). Smoking-only habits were predominant (58.5%), but dual use (15.7%) and smokeless tobacco use (26.0%) were notable among females. Illiteracy (50.2%), low socio-economic status (Class V, 44.5%), and occupation as labourers (58.8%) were strongly associated with higher tobacco use. Initiation of tobacco use before 20 years was common (59.2%). Social influence from family (63.2%) and peers (74.5%) was significant, though 85.9% of users were aware of health hazards.

Conclusion: Tobacco use patterns are deeply entrenched in socio-economic, educational, and cultural contexts, with slum dwellers and disadvantaged groups exhibiting higher prevalence. Early initiation and strong social influences underscore the need for targeted interventions.

Recommendations: Strengthen community-level education, enforce policy measures, and integrate tobacco cessation programs with socio-economic upliftment schemes for slum populations to reduce the tobacco burden.

Keywords: *Tobacco Use, Slum Population, Non-Slum, Socio-Demographic Factors, Smoking Patterns, Urban Health*

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Introduction

Tobacco use remains a leading preventable cause of global morbidity and mortality, contributing

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significantly to the burden of non-communicable diseases such as cardiovascular disorders, respiratory illnesses, and various malignancies. The World Health Organization (WHO) estimates that tobacco is responsible for over 8 million deaths annually, with more than 80% of users residing in low- and middle-income countries where the health impact is most severe [1].

India, the world's second-largest consumer of tobacco, is grappling with a rising tobacco epidemic, with approximately 267 million current users across various forms of tobacco products [2]. The Global Adult Tobacco Survey (GATS-2, 2016-17) reported a national prevalence of 28.6% for tobacco use among Indian adults, with stark disparities across gender, socio-economic strata, and urban-rural settings [3]. The challenge of tobacco control in India is further compounded by the diversity of tobacco consumption patterns, including smoked forms (cigarettes, bidis) and smokeless varieties (gutka, khaini, zarda), deeply embedded in cultural and social practices [3].

Urban slum populations represent one of the most vulnerable groups, disproportionately affected due to socio-economic disadvantages, overcrowding, poor literacy levels, and limited access to healthcare services. These populations are at heightened risk of adopting tobacco habits due to early exposure, peer influence, and lack of awareness regarding its health implications [4]. Multiple studies have highlighted that lower educational attainment, marginal occupational status, and low socio-economic class are critical determinants of tobacco use, particularly among slum dwellers, necessitating targeted interventions [5].

Despite India's comprehensive tobacco control policies, including the Cigarettes and Other Tobacco Products Act and adherence to the WHO Framework Convention on Tobacco Control (FCTC), enforcement gaps and inadequate community-level interventions continue to hinder progress in reducing tobacco use among marginalized urban populations.

Vijayawada, a major urban center in Andhra Pradesh, exhibits a substantial urban slum population. However, limited empirical data exist on the comparative patterns of tobacco use between slum and non-slum populations in this region. Therefore, this study aims to assess and compare the determinants and usage patterns of tobacco among adult male slum and non-slum dwellers of Vijayawada city, to generate evidence for targeted interventions.

Materials and Methods

Study Design and Setting

A **community-based cross-sectional descriptive study** was conducted in Vijayawada city, the second-largest urban center in Andhra Pradesh, India. Vijayawada has a population of approximately 10.5 lakh, with significant pockets of urban slums characterized by socio-economic disadvantages. The study was carried out over 24 months **(November 2016 to October 2018)**.

Study Population

The study included **adult males aged ≥18 years** residing in both slum and non-slum areas of Vijayawada city. Only permanent residents who provided informed consent were included. Individuals who were unwilling or unavailable during the survey visits were excluded.

Sample Size Calculation

The sample size was calculated based on an anticipated tobacco use prevalence of 30% (as per previous national surveys), with a 7% allowable error at a 95% confidence interval. Using the formula $n = Z^2pq/d^2$, the minimum sample size was estimated at **1828 participants**. After accounting for a 10% non-response rate, the final sample size was rounded to **2008 participants**.

Sampling Technique

A **multistage random sampling** method was employed. Vijayawada city was stratified into slum and non-slum sectors. Eight slums (5% of total) and four non-slum localities (10% of total) were selected using simple random sampling. Within each selected locality, households were systematically sampled (every Kth house) to reach the target sample size proportionally. All eligible adult males in the selected households were interviewed.

Data Collection Tool

Data were collected using a **pre-designed, pre-tested, semi-structured questionnaire**, which included sections on socio-demographic profile, tobacco usage patterns, type of tobacco used, initiation age, frequency, duration, quit attempts, and influence of family and peers.

Bias Control

To minimize selection bias, a multistage random sampling method was employed, ensuring proportional representation of both slum and non-

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slum populations. Households were systematically selected, and all eligible adult males in the chosen households were interviewed, thereby reducing the risk of interviewer bias. Recall bias was addressed by using a pre-tested semi-structured questionnaire with simple, clear questions to facilitate accurate reporting. Social desirability bias, particularly regarding female tobacco use, was mitigated by ensuring confidentiality and conducting interviews in a non-judgmental manner.

Statistical Analysis.

Data entry and statistical analysis were performed using **Microsoft Excel 2010** and **SPSS version 20.0**. Categorical variables were expressed as frequencies and percentages. Associations between categorical variables were evaluated using the Chi-square test, with statistical significance set at $p < 0.05$.

Ethical Considerations.

Ethical approval was obtained from the **Institutional Ethical Committee of Siddhartha Medical College, Vijayawada**. Permissions were also secured from the **Vijayawada Municipal Corporation** and local administrative authorities. Informed written consent was taken from all participants.

RESULTS

Participant Flow

A total of 2250 individuals were approached across the selected households. Of these, 142 were not eligible (age <18 years or non-residents), and 100 declined participation. Thus, the 2008 participants were finally enrolled and analyzed.

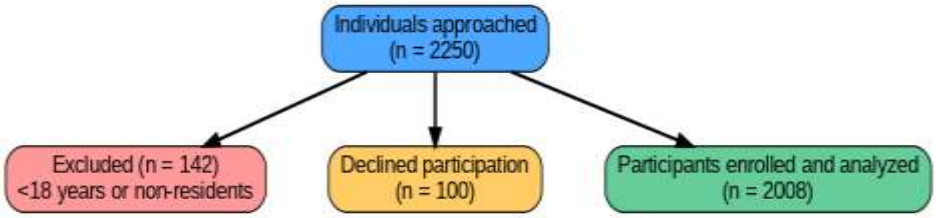

Figure 1. Participant Flow Diagram

A total of 2008 participants were enrolled in the study, comprising 1215 (60.5%) non-slum residents and 793 (39.5%) slum residents. Males accounted for 51.2% (n = 1029) of the total study population. The predominant age group was 20–29 years, representing 23.3% (n = 469) of the subjects. Hindus constituted the majority religion (82.5%) with a significant proportion belonging to the BC caste category (46.0%). A higher percentage of married individuals was noted among slum dwellers (59.9%) compared to non-slum dwellers (52.2%). Educational status revealed that 42.4% of the participants had completed primary education, while 23.9% were engaged in agricultural occupations, predominantly from slum areas (55.9%). Nuclear family structures were more common in non-slum areas (62.1%), whereas socio-economic class IV was predominant overall (33.0%) (Table 1).

Table 1: Socio-Demographic Profile of Study Subjects (N = 2008)

Variable	Non-Slum n (%)	Slum n (%)	Total n (%)
Total Participants	1215 (60.5%)	793 (39.5%)	2008 (100%)
Sex (Male)	625 (51.4%)	404 (50.9%)	1029 (51.2%)
Age Group (20–29 years)	279 (23.0%)	190 (24.0%)	469 (23.3%)
Religion (Hindu)	961 (79.1%)	696 (87.8%)	1657 (82.5%)
Caste (BC among Hindus)	424 (44.1%)	339 (48.7%)	763 (46.0%)
Marital Status (Married)	634 (52.2%)	475 (59.9%)	1109 (55.2%)
Literacy Level (Primary Education)	471 (38.8%)	380 (47.9%)	851 (42.4%)

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Occupation (Agriculture)	36 (3.0%)	443 (55.9%)	479 (23.9%)
Family Type (Nuclear)	755 (62.1%)	398 (50.1%)	1153 (57.4%)
Socio-Economic Status (Class IV)	362 (29.8%)	300 (37.8%)	662 (33.0%)

The prevalence of ever tobacco use in the study population was 35.3%, with slum residents showing a slightly higher proportion (37.1%) than their non-slum counterparts (34.1%). Current tobacco use was observed in 30.7% of participants and was significantly more common among males (39.5%) than females (21.5%) (χ^2 test, $p < 0.001$). Quit rates among ever users remained low at 12.9%, with minimal variation between slum and non-slum areas as well as between sexes (Table 2).

Table 2: Prevalence of Tobacco Use Patterns by Locality and Sex

Category	Non-Slum n (%)	Slum n (%)	Male n (%)	Female n (%)	χ^2 value	p-value
Never Users	801 (65.9%)	499 (62.9%)	562 (54.6%)	738 (75.4%)	58.9	<0.001*
Ever Users	414 (34.1%)	294 (37.1%)	467 (45.4%)	241 (24.6%)		
Current Tobacco Users	356 (29.3%)	261 (32.9%)	407 (39.5%)	210 (21.5%)		
Quitters (Ex-users)	58 (14.0% of ever users)	33 (11.2% of ever users)	60 (12.8% of ever users)	31 (12.9% of ever users)		

Among current users (n = 617), the majority used smoking forms of tobacco only (59.0% in non-slum; 57.5% in slum areas). Dual use of both smoking and smokeless forms was noted in 15.7% of users across both localities. Males predominantly engaged in smoking-only habits (73.7%), whereas a significant proportion of females preferred smokeless tobacco (45.2%) or dual use (26.2%) (Table 3).

Table 3: Type of Tobacco Products Used Among Current Users (N = 617)

Type of Tobacco Product	Non-Slum n (%)	Slum n (%)	Male n (%)	Female n (%)
Smoking Only	210 (59.0%)*	150 (57.5%)*	300 (73.7%)*	60 (28.6%)*
Smokeless Only	90 (25.3%)*	70 (26.8%)*	65 (16.0%)*	95 (45.2%)*
Dual Use (Smoking + Smokeless)	56 (15.7%)*	41 (15.7%)*	42 (10.3%)*	55 (26.2%)*

Analysis of current tobacco use across socio-demographic categories showed notable variations. Participants aged 30–39 years reported a prevalence of 35.5%. Tobacco use was more common among Muslims (40.9%) compared to other religious groups. Illiterates demonstrated the highest prevalence (50.2%), while labourers exhibited particularly high use (58.8%). Individuals from socio-economic class V also reported elevated prevalence (44.5%), underscoring the strong link between lower socio-economic status and tobacco consumption (Table 4).

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Table 4: Current Tobacco Use by Socio-Demographic Variables

Variable	Total (n)	Current Users n (%)	χ^2 value	p-value
Age Group 30–39 years	324	115 (35.5)	10.8	0.001*
Religion (Muslim)	235	96 (40.9)	7.5	0.006*
Marital Status (Married)	1109	420 (37.9)	12.2	<0.001*
Literacy Level (Illiterate)	319	160 (50.2)	25.6	<0.001*
Occupation (Labourers)	102	60 (58.8)	18.3	<0.001*
Family Type (Nuclear)	1153	305 (26.4)	9.4	0.002*
Socio-Economic Status (Class V)	506	225 (44.5)	15.1	<0.001*

**Statistically significant at p < 0.05 (Chi-square test).*

Among the current users, the majority were daily users (76.2%), while 23.8% reported occasional use. The age of onset of tobacco use was below 20 years in 59.2% of users, suggesting early initiation. Prolonged usage was common, with 40.5% of users reporting more than 10 years of continuous use (Table 5).

Table 5: Patterns of Tobacco Use Among Current Users (N = 617)

Pattern Variable	n (%)
Daily Users	470 (76.2%)*
Occasional Users	147 (23.8%)*
Age of Onset <20 yrs	365 (59.2%)*
Age of Onset ≥30 yrs	80 (13.0%)*
Duration of Use <5 years	150 (24.3%)*
Duration of Use >10 years	250 (40.5%)*

Regarding social influence, a significant proportion of current users reported family members (63.2%) and friends (74.5%) also consuming tobacco. Peer pressure was a notable factor in 50.2% of users. Encouragingly, 85.9% of current users were aware of the harmful health effects of tobacco, although this awareness did not translate into successful cessation efforts (Table 6).

Table 6: Influence of Family and Social Factors on Current Users (N = 617)

Factor	n (%)
Family Member Uses Tobacco	390 (63.2%)*
Friends Use Tobacco	460 (74.5%)*
Peer Influence Noted	310 (50.2%)*
Aware of Harmful Effects	530 (85.9%)*

Discussion

This study presents an in-depth evaluation of tobacco consumption patterns and their socio-demographic determinants among adult males residing in slum and non-slum localities of Vijayawada city. The prevalence of current tobacco use in this study was 30.7%, which is comparable to national estimates, though relatively lower than the levels documented in other studies conducted among urban slum populations in India [6].

A significant finding was the higher prevalence of tobacco use among slum residents (**32.9%**)

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compared to non-slum residents (**29.3%**), echoing similar observations in other population-based studies, which attribute this disparity to poor health literacy, normalization of tobacco use within slum communities, and socio-economic constraints that foster such behaviors [7]. Limited access to health promotion resources, coupled with peer and familial influences, is a well-recognized contributor to this disproportionate tobacco burden.

Marked gender disparities were evident, with males demonstrating a significantly higher prevalence of tobacco use (**39.5%**) than females (**21.5%**) ($p < 0.001$), reflecting entrenched socio-cultural perceptions regarding gender roles and tobacco consumption [8]. Nevertheless, the alarmingly high rates of smokeless tobacco use among females (**45.2%**) in this study align with recent reports indicating a growing trend of smokeless tobacco products among women, necessitating tailored intervention strategies [9].

The association of tobacco use with lower educational levels (**50.2%** among illiterates), poor socio-economic status (**44.5% in Class V**), and labor-intensive occupations (**58.8% among laborers**) mirrors findings from earlier studies, highlighting that tobacco usage is deeply intertwined with socio-economic vulnerabilities [10]. This underscores the importance of comprehensive interventions that address these root determinants beyond conventional awareness programs.

Early initiation of tobacco use continues to be a critical concern, with **59.2% of current users starting before the age of 20 years**. Such early adoption is often driven by peer influence and familial tobacco habits, reinforcing behavioral patterns through social learning mechanisms [6]. The high prevalence of tobacco usage among individuals with family members (**63.2%**) and friends (**74.5%**) who consume tobacco supports these findings, emphasizing the pervasive impact of social networks on tobacco behavior.

Despite a high level of awareness regarding the detrimental health effects of tobacco (**85.9% of current users were aware**), the quit rates remained discouragingly low (**12.9% among ever users**). This gap between knowledge and action can be attributed to factors such as nicotine dependence, lack of structured cessation support, and the socio-cultural acceptance of tobacco use, particularly in marginalized communities [11]. Similar trends have been noted in other studies, calling for integrated cessation services that are accessible and culturally sensitive.

Furthermore, the predominance of daily users (**76.2%**) and long-term users (over **10 years of usage in 40.5%**) amplifies the long-term public health burden associated with tobacco-related morbidities in these populations. These patterns reflect the chronic nature of tobacco dependence and underscore the need for sustained, multi-level intervention strategies.

Public Health Implications

The study underscores the urgent need for **multi-pronged interventions** focusing on community-based health education, stringent policy enforcement in urban slum settings, and the establishment of accessible tobacco cessation programs. Targeting school-going adolescents, empowering women through awareness initiatives, and addressing socio-economic determinants through integrated urban health missions are crucial steps forward.

Generalizability

The study's large sample size, community-based design, and inclusion of both slum and non-slum populations enhance its generalizability to urban settings with similar socio-demographic profiles, particularly in developing countries facing comparable tobacco-related public health challenges.

Conclusion

This study highlights a substantial burden of tobacco use among urban slum and non-slum populations of Vijayawada, with higher prevalence among males, slum residents, illiterates, and socio-economically disadvantaged groups. Early initiation, daily usage patterns, and strong familial and peer influences perpetuate tobacco consumption, despite high awareness of its harmful effects. The low quit rates emphasize the need for robust cessation support services. Comprehensive tobacco control strategies must address socio-economic vulnerabilities, strengthen community-based awareness, and enforce policy measures at grassroots levels. Multi-sectoral interventions integrating health, education, and urban development are imperative to curb tobacco use and its associated health risks.

Limitations

Being a cross-sectional study, causal relationships could not be established. The reliance on self-reported data introduced potential recall and reporting biases, particularly concerning female tobacco use, due to social desirability bias.

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Recommendations

Tobacco control interventions must prioritize urban slum populations through targeted health education, community mobilization, and school-based awareness programs to prevent early initiation. Strengthening the enforcement of tobacco control laws, including restrictions on sales to minors and public smoking bans, is essential. Establishing accessible tobacco cessation centers at primary healthcare levels, integrating cessation support into existing health programs, and utilizing peer educators can enhance quit rates. Socio-economic upliftment initiatives, skill development programs, and promoting alternative livelihoods can address the root causes driving tobacco dependency. Multi-sectoral collaboration between health, education, and urban development departments is crucial for sustainable tobacco control outcomes.

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Abbreviations

COTPA – Cigarettes and Other Tobacco Products Act
FCTC – Framework Convention on Tobacco Control
GATS – Global Adult Tobacco Survey
SES – Socio-Economic Status
WHO – World Health Organization
SPSS – Statistical Package for the Social Sciences

Source of funding

The study had no funding.

Conflict of interest

The authors declare no conflict of interest.

Author contributions

MVR-Concept and design of the study, results interpretation, review of literature, and preparation of the first draft of the manuscript. Statistical analysis and interpretation, revision of manuscript. **KSG**-Concept and design of the study, results interpretation, review of literature, and preparing the first draft of the manuscript, revision of the manuscript. **ES**-Review of literature and preparing the first draft of the manuscript. Statistical analysis and interpretation.

Data availability

Data available on request

Author Biography

Dr. Mokalla Venkateswara Rao is currently serving as an Assistant Professor in the Department of Community Medicine at Government Medical College, Khammam, Telangana, India. He completed his MBBS from Government Medical College, Anantapur (2003–2008), followed by an MD in Community Medicine from Siddhartha Medical College, Vijayawada (2016–2019).

Dr. Rao has an extensive public health service background, beginning his career as a Medical Officer at PHC Gouridevipeta, Andhra Pradesh (2009–2011), and later at MCH & Epidemic Team, Kunavaram (2011–2012). He further served as Medical Officer at NRC, Area Hospital, Bhadrachalam (2012–2014), and PHC Karakagudem, Bhadrachalam (2014–2016). His notable contributions during this period include primary healthcare delivery in tribal and underserved regions. From 2019 to 2021, Dr. Rao took on critical administrative roles as Deputy District Medical and Health Officer, District Malaria Officer, and Nodal Officer for COVID-19 at DM&HO, Kothagudem, Telangana. His leadership was instrumental in coordinating epidemic response strategies and malaria control programs at the district level during the COVID-19 pandemic.

In 2021, he transitioned into academia, joining the Government Medical College, Bhadradri Kothagudem, as an Assistant Professor in Community Medicine (2021–2024). Currently, he continues his academic and public health endeavors at Government Medical College, Khammam (2024–present), contributing to undergraduate teaching, public health research, and community outreach programs.

Dr. Rao's career reflects a unique blend of grassroots healthcare service, public health administration, and academic excellence, with a dedicated focus on tribal health, infectious disease control, and medical education. **ORCID ID:** https://orcid.org/0009-0001-4006-9729

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With over two years of teaching experience, Dr. Sujana Goud has been actively involved in academic mentoring, successfully guiding undergraduate students in securing and executing Indian Council of Medical Research (ICMR)-funded Short-Term Studentship (STS) projects. Her academic interests encompass epidemiology, public health policy, and health promotion strategies, with a focus on translating research into community-level interventions.

She remains dedicated to fostering research aptitude among medical students while contributing to community outreach programs and public health education initiatives.

Dr. Embadi Soujanya is currently serving as an Assistant Professor in the Department of Otorhinolaryngology (ENT) at Government Medical College, Khammam, Telangana, India. She completed her MBBS from MNR Medical College, Sangareddy, and subsequently earned her Master of Surgery (MS) degree in ENT from Kakatiya Medical College, Warangal.

With over three years of teaching experience, Dr. Soujanya has been actively involved in mentoring undergraduate medical students, particularly in clinical research projects and hands-on clinical training. Her academic interests lie in head and neck surgery, otology, and rhinology, with a keen focus on evidence-based clinical practice.

She has authored a research publication in a reputed peer-reviewed journal, contributing to the academic discourse in the field of Otorhinolaryngology. Dr. Soujanya continues to engage in research activities while balancing her clinical and teaching responsibilities. **ORCID ID**: https://orcid.org/0009-0001-6293-4250

References

1. Choudhary N, Sangra S. Pattern of Tobacco consumption among urban slum population in Jammu region: A cross-sectional study. J Family Med Prim Care. 2021 Mar;10(3):1193-1196. doi: 10.4103/jfmpc.jfmpc_1428_20. Epub 2021 Apr 8. PMID: 34041150; PMCID: PMC8140253. https://doi.org/10.4103/jfmpc.jfmpc_1428_20
2. Gupta V, Yadav K, Anand K. Patterns of tobacco use across rural, urban, and urban-slum populations in a north Indian community. Indian J Community Med. 2010 Apr;35(2):245-51. Doi: 10.4103/0970-0218.66877. PMID: 20922100; PMCID: PMC2940179. https://doi.org/10.4103/0970-0218.66877
3. Mishra GA, Pimple SA, Shastri SS. An overview of the tobacco problem in India. Indian J Med Paediatr OncolOncol. 2012;33:139-45. doi: 10.4103/0971-5851.103139. https://doi.org/10.4103/0971-5851.103139
4. Sarkar A, Roy D, Nongpiur A. A population-based study on tobacco consumption in urban slums: Its prevalence, pattern, and determinants. J Family Med Prim Care. 2019 Mar;8(3):892-898. doi: 10.4103/jfmpc.jfmpc_42_19. PMID: 31041220; PMCID: PMC6482753. https://doi.org/10.4103/jfmpc.jfmpc_42_19
5. Nethan ST, Sinha DN, Kedar A, Kumar V, Sharma S, Hariprasad R, Mehrotra R. Tobacco use among urban slum dwellers attending a cancer screening clinic in the National Capital Region of India: a cross-sectional study. Ecancermedicalscience. 2021 May 11;15:1230. Doi: 10.3332/ecancer. 2021.1230. PMID: 34158834; PMCID: PMC8183651. https://doi.org/10.3332/ecancer
6. Choudhary N, Bahl R. Socio-demographic profile of tobacco consuming students in the age group of 15 to 25 years in Jammu. Indian J Forensic Community Med. 2019;6:214-9. https://doi.org/10.18231/j.ijfcm.2019.047
7. Niaz K, Maqbool F, Abdollahi M. Smokeless tobacco (paan and gutkha) consumption, prevalence, and contribution to oral cancer? Epidemiol Health. 2017;39:e2017009. doi: 10.4178/epih.e2017009. doi: 10.4178/epih.e2017009. https://doi.org/10.4178/epih.e2017009
8. Kar SS, Sivanantham P, Rehman T, Chinnakali P, Thiagarajan S. Willingness to quit tobacco and its correlates among

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Indian Tobacco users- Findings from the Global Adult Tobacco Survey India, 2016-17. J Postgrad Med. 2020;66:141 8. doi: 10.4103/jpgm.JPGM_408_19. https://doi.org/10.4103/jpgm.JPGM_408_19

9. Singh S, Jain P, Singh P, Reddy K Srinath, Bhargava B. White Paper on smokeless tobacco and women's health in India. Indian Jo Med Res. 2020;151:513-21. doi: 10.4103/ijmr.IJMR_537_20. https://doi.org/10.4103/ijmr.IJMR_537_20
10. Shahbabu B, Dasgupta A, Sarkar I, Sarkar K. Rural-urban differentials in predicting tobacco consumption pattern among males above 15 years: A cross-sectional community survey. Med J DY Patil Vidyapeeth. 2020;13:143-50.https://doi.org/10.4103/mjdrdypu.mjdrdypu_49_19
11. Rooban T, Joshua E, Umadevi KR, Ranganathan K. Prevalence and correlates of tobacco use among urban adult men in India: A comparison of slum dwellers vs non-slum dwellers. Indian J Dent Res. 2012;23:31-8. https://doi.org/10.4103/0970-9290.99034

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