

**FROM THE POT TO THE FIRE-SHIFTING FROM SMOKING TO SMOKELESS
TOBACCO-A CROSS SECTION STUDY**

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INTRODUCTION

Tobacco is a very harmful and addictive substance. Tobacco use leads to many disabling health conditions. Tobacco is used in many different forms. Cigarettes, Bidis, Hukka, and Chilam(Gaanja) are some of the products used for smoking. Smokeless tobacco is used in the form of Paan (betel leaf), Gutkha, Zarda, Khaini, and Dohra which are used orally. A lot of factors like social norms and acceptability, availability, individual attitudes and beliefs and advertising campaigns drive the consumption of Tobacco.^[1]

Among all the people who smoke globally, 16.6% live in India, which amounts to 182 million.^[1] Several large scale studies on the association between tobacco use and mortality have been documented in India.^[2-4] The proportion of deaths attributable to tobacco use were about 1 million in 2010 in Indian men and women.^[5]

The construction sector in India is an ever growing industry with more than 20 million of construction workers at present. Migrant construction workers are highly susceptible to various occupational hazards. Construction workers do heavy physical work while living in unhealthy environments. Their working pattern, absence of recreational activities and influence of friends force them to indulge in various substance abuse acts. Tobacco and alcohol abuse or other risk-taking behavior is quite common in this sector. In addition there are a range of myths and misconceptions regarding tobacco and alcohol use; that they suppress appetite, reduce anxiety and tension, help increase concentration, cause muscle relaxation and induce feelings of pleasure.^[6]

The ban on smoking in public places, control on selling of tobacco to minors, steep increase in the rates of cigarettes have all to a certain extent been successful in reducing the usage of cigarettes. In this context, many former smokers who find it difficult to restrain from the habit of smoking have found solace in chewing tobacco.

This study aims to find out the reasons behind the shift from Smoking tobacco to smokeless tobacco among a cross section of migrant workers in Tumkuru city.

MATERIALS AND METHODS

A Cross Sectional Study was conducted for a period of two months from December 2017 to February 2018 in the urban setting of Tumkuru city. The migrant workers working in construction sites such as roads and buildings were approached and persons who consented to participate in the survey were interviewed. A total of 157 Migrant workers participated in the study. The participants were given a structured and pretested questionnaire by the investigator to assess their socio-demographic details, usage of cigarettes, and other forms of tobacco, awareness and implications of COTPA Act and reasons for shifting to smokeless tobacco. Data was entered in MS-Excel datasheet and results were reported as frequencies, proportions and percentages. Chi-square test for proportions was used for statistical significance.

RESULTS

The present study was conducted among 157 Migrant Construction workers aged between 18 and 60 years. A majority of the respondents (56.7%) were in the age group of 18 – 40 years (young adults), followed by the age group of 41-60 years (39.5%). About 132(84%) of them were Hindus by religion and 58(37%) of the subjects were Illiterate. By occupational classification, a majority of the workers were in the unskilled category (56%), followed by skilled workers (29%) and semi-

skilled workers(15%). 91(58%) subjects were married. Majority of the migrants were from the state of Bihar 52(33.1%) followed by Uttar Pradesh 31(19.7%) (Table 1).

Among 157 migrant workers interviewed, 145(92.3%) of them were Tobacco users which included 45(28.6%) Smokers, 83(52.8%) Tobacco chewers/Smokeless tobacco users and 17(10.8%) who used both forms of tobacco (Table 2).

Among the tobacco users in the study population only 24(16.5%) subjects had any knowledge about COTPA (Table 3).

Only 05(18.5%) of the smokers shifted from smoking to smokeless tobacco as a cessation method whereas

13(48.1%) of the smokers felt that the cost of cigarettes was an important factor for them to switch to tobacco chewing and 07(25.9%) of them felt that the ban /objection of smoking in public places/work places forced them to quit smoking and start using smokeless tobacco. 02(7.4%) of them perceived that there was no ban on chewing tobacco but only on smoking tobacco (Table 5).

Majority of the smokers in the study used Beedi (18.4%) and commercially available chewing tobacco was used by about 59% of smokeless tobacco users (Table 6).

Around 46(31.7%) subjects had started using tobacco owing to peer pressure and 28(19.3%) had started using tobacco out of sheer inquisitiveness or curiosity (Table 7).

Table 1: Socio Demographic profile of the study population.

Parameters	Frequency (n)	Percentage (%)
Age group(years)		
18-40(young adults)	89	56.68
41-60(middle aged adults)	62	39.49
> 60(old adults)	6	3.82
Marital Status		
Unmarried	56	35.66
Married	91	57.96
Religion		
Hindu	132	84.07
Muslim	21	13.37
Others	4	2.5
Education		
Illiterate	58	36.94
Matriculation	80	50.95
Above Matriculation	19	12.10
State of origin		
Bihar	52	33.13
Uttar Pradesh	31	19.74
Madhya Pradesh	27	17.19
West Bengal	22	14.01
Others	25	15.72
Occupation		
Unskilled (brick layers, coolie)	88	56.05
Semi-skilled (Granite, tile layers)	23	14.64
Skilled (Painters, Carpenters)	46	29.29

Table 2: Association between age and smoking pattern.

Age in Yrs	Smokeless Tobacco	Smoking	Both Smoking & Smokeless Tobacco	No Habits	P value
18-40	46	26	12	5	0.199
41-60	32	19	5	6	0.199
Above 60	5	0	0	1	0.199

Table 3: Knowledge of COTPA among Tobacco users.

Deleterious Habits	Knowledge about COTPA	No Knowledge about COTPA	P value
Smoking	11	34	0.01
Smokeless Tobacco	9	74	0.01
Both smoking & smokeless tobacco	4	14	0.01

Table 4: Distribution of Subjects who Shifted from Smoking to Smokeless tobacco.

Age in Years	Number of Smokers	No. of smokers shifted from Smoking to Smokeless tobacco	P value
18-40	26 (57.8%)	16(59.2%)	0.199
41-60	19 (42.2%)	11(40.8%)	0.199
Total	45 (100%)	27(100%)	

Table 5: Smoking pattern of the study subjects.

Parameter	Frequency (n)	Percentage(%)
Smoking (N=157)		
Yes	45	28.6
No	112	71.3
Smokeless tobacco(N=157)		
Yes	83	52.86
No	74	47.1
Both Smoking and Smokeless (N=157)		
Yes	17	10.8
Type of Smoking (N=45)		
Bidi	29	18.4
Cigarette	6	13.3
Both	10	6.36
Type of Smokeless Tobacco (N=83)		
Guthka	14	16.8
Tobacco	49	59
Paan	20	24

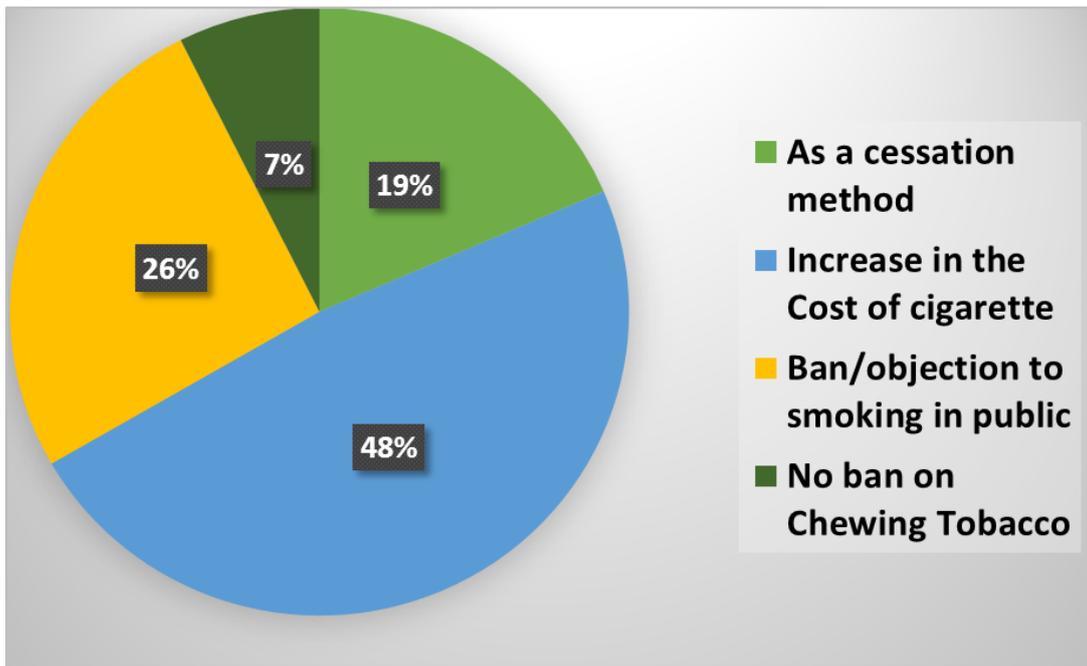


Figure 1: Reasons for Shifting from Smoking to Smokeless tobacco.

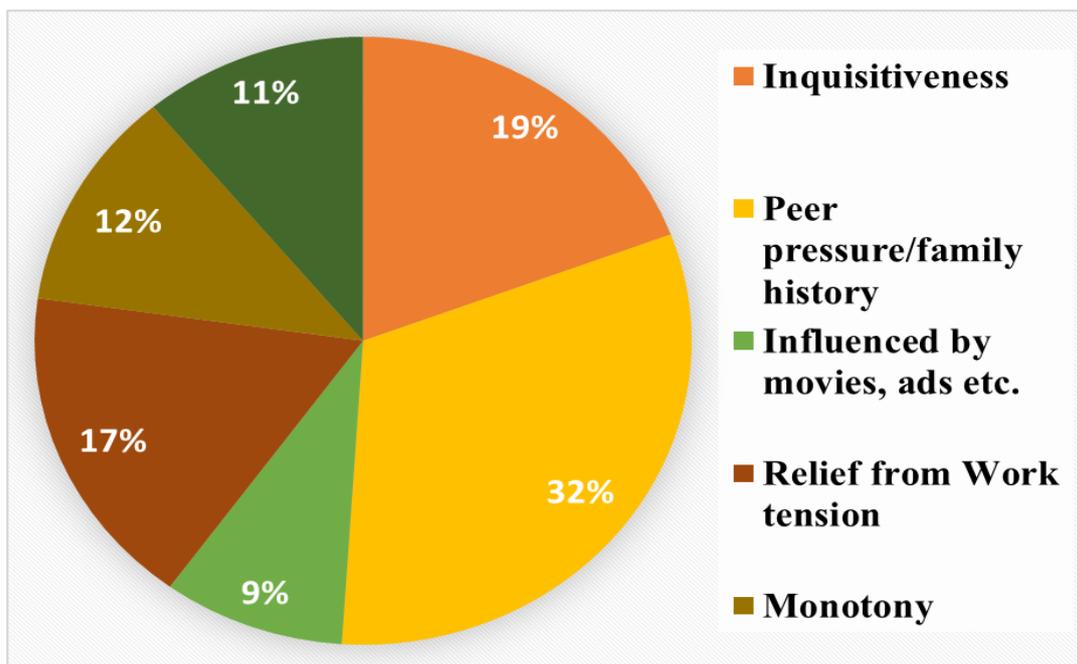


Figure 2: Factors influencing initiation of tobacco use.

DISCUSSION

The present study tries to assimilate the knowledge, attitude and reasons for shifting from smoking tobacco to smokeless tobacco among migrant workers Tumkur city.

A majority of the respondents (56.7%) were in the age group of 18 – 40 years which is comparable to the findings in other studies^[6,12,13] regarding the most prevalent age group for tobacco use. According to NFHS-3 reports, increase in tobacco use was particularly large among young adult males.^[14]

This study shows that 92% of the study population were tobacco users similar to a study done by Parashar et al in Delhi.^[7]

The proportion of smokers in our study was 28.6% which is comparable to the findings in a study by Amrutha AM et al in Mysore city.^[6] The study shows the prevalence of smokeless tobacco among male migrant workers was 52.8% which is similar to the findings by Parashar^[7] et al but is much lesser to the findings of male migrant workers in urban Kerala.^[9]

The present study shows that about 25.9% of smokers shifted from smoking to smokeless tobacco with the main reason being ban or objection of smoking in public places similar to a study done on self reported Guthka users by Kokila G *et al.*^[10] The other reasons included an increase in the cost of cigarettes(48.1%) and as a cessation method(18.5%) which is in contrast to a study done in Indian adults by Mini GK *et al* which showed that the main reason for shifting from smoking to smokeless tobacco was as a cessation method.^[11] In a study by Ahmed M *et al*^[1] the main reason to stop smoking by the subjects was to improve their health, and 1.18% felt that it was to save money. Around 46(31.7%) subjects had started using tobacco owing to peer pressure and 28(19.3%) had started using tobacco out of sheer inquisitiveness similar to the study findings by Amrutha *et al.*^[6] Enjoyment, peer pressure and curiosity were cited as the main reason for initiating tobacco use among the respondents in a study by Guptha RK *et al* in Jammu and Kashmir.^[8]

CONCLUSION AND RECOMMENDATIONS

It is quite apparent from this study that tobacco consumption is highly prevalent among construction workers which can be attributed to factors like occupation involving hard labour, low socioeconomic status and illiteracy. Migrant workers being separated from their families for long durations and living in poor conditions, adapting to challenging environments and looking for employment opportunities all add to the stress among them leading to increased risk of smoking and tobacco use. Also there is very inadequate awareness of tobacco control measures and stress management skills.

Hence it is highly recommended that policy makers should incorporate health management tools as an important component of smoking cessation activities. Also, there is a need to provide a Structured, Community-based stress management and tobacco control awareness curriculum with topics like risk factor identification and management together with other anti-tobacco measures.

REFERENCES

- Ahmed M, Vadiraja N, Ravi A, Hebbar B, Kasturi S. Use of Tobacco among Pre –University Male Students in Mysore city, India. A Questionnaire Study. *Int J Sci Study*, 2015; 2(11): 128-36.
- Gupta PC, Bhonsle RB, Mehta FS, Pindborg JJ. Mortality experience in relation to tobacco chewing and smoking habits from a 10-year follow-up study in Ernakulam District, Kerala. *Int J Epidemiol*, 1984; 13: 184-7.
- Gajalakshmi V, Peto R, Kanaka TS, Jha P. Smoking and mortality from tuberculosis and other diseases in India: Retrospective study of 43000 adult male deaths and 35000 controls. *Lancet*, 2003; 362: 507-15.
- Gupta PC, Mehta HC. Cohort study of all-cause mortality among tobacco users in Mumbai, India. *Bull World Health Organ*, 2000; 78: 877-83.
- Jha P, Jacob B, Gajalakshmi V, Gupta PC, Dhingra N, Kumar R, *et al.* A Nationally representative Case-control study of smoking and death in India. *N Engl J Med*, 2008; 358: 1137-47.
- Amrutha AM, Karinagannanavar A, Ahmed M. Proportion of smokers and its determinants among migrant workers in Mysore, Karnataka, India. *Int J Community Med Public Health*, 2016; 3: 856-60.
- Parashar M, Dwivedi S, Singh M. Tobacco use behaviour among construction site workers of Delhi, India. *Int J Health Allied Sci.*, 2017; 6: 210-4.
- Rajiv Kumar Gupta, Rashmi Kumari, Bhavna Langer. Prevalence, patterns and determinants of smoking among migrant workers in Jammu and Kashmir, India. *Int J of Res in Med sciences*, 2018; 6(8).
- Aslesh OP, Sam Paul, Lipsy Paul. High Prevalence of tobacco use and associated oral mucosal lesion among interstate male migrant workers in urban Kerala, India. *Iran J Cancer Prev.*, 2015 December; 8(6): e3876.
- Kokila G, Bharateesh JV. Gutkha ban - A myth? *J Adv Clin Res Insights*, 2016; 3: 129-132.
- Mini G K, Suresh Kumar NB. Are Indians Shifting from smoking to smokeless tobacco. *Proceedings of the International Conference on Public Health Priorities in the 21st Century: The Endgame for Tobacco*, 2013 Sept 10-12; New Delhi, India.
- Rani M, Bonu S, Jha P, Nguyen SN, Jamjoum L. Tobacco use in India: Prevalence and predictors of smoking and chewing in a national cross sectional household survey. *Tob Control*, 2003.
- Reddy KS, Gupta PC. Report on tobacco control in India. New Delhi: Ministry of Health and Family Welfare, Government of India, 2004.
- Subramanian SV, Nandy S, Kelly M, Gordon D, Davey Smith G, Patterns and distribution of tobacco consumption in India: cross sectional multilevel evidence from the 1998-9 National Family Health Survey. *BMJ.*, 2004; 328(7443): 801-6.