



## “VIDEO ASSISTED AWARENESS PROGRAMME ON ILL EFFECTS OF TOBACCO AND PAN-CHEWING AMONG MIGRANT LABOURERS”

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### ABSTRACT

**Introduction:** WHO initiates World No Tobacco Day 2020 global campaign on World No Tobacco Day on 31st May with the theme to make people aware about the ill effects of tobacco and reduce the disease burden in society.

**Aims:** This study aimed to develop awareness among the migrant labourers regarding ill effects of tobacco and pan chewing. The objectives were to assess the tobacco and pan chewing habits, and effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing among migrant labourers of Raipur district, Chhattisgarh.

**Methods and material:** A community based cross-sectional study using experimental design was done to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing. The demographic data, habits on tobacco and pan chewing and knowledge on ill effects of tobacco and pan chewing was assessed through interview method using a structured knowledge questionnaire.

**Results:** Seventy percentage of the samples have inadequate knowledge regarding ill effects of tobacco/pan chewing and video assisted teaching was an effective intervention in improving the knowledge regarding ill effects of tobacco and pan chewing among migrant labourers. Conclusion: The study concluded that migrant labourers are unaware about the ill effects of tobacco/pan chewing and awareness programmes can be implemented to motivate them. Video assisted teaching was one such intervention which was found effective in improving awareness.

### KEYWORDS : tobacco and pan chewing, knowledge, video assisted teaching

*May 31<sup>st</sup> 2020- The World No Tobacco Day (WNTD) and the theme is “Protecting youth from industry manipulation and preventing them from tobacco and nicotine use”.*

WHO brings out World No Tobacco Day 2020 global campaign on World No Tobacco Day on 31st May 2020. The aim of this campaign includes equipping young people with knowledge about the tobacco and related industries intentions and tactics to hook current and future generations on tobacco and nicotine products.<sup>1,2</sup>

In India as per WHO fact sheet, one million people die due to tobacco usage which contributes to 9.5% of deaths among the 266.8 million Indians who use tobacco.<sup>3</sup> According to the Global Adult Tobacco Survey done in accordance with WHO in 2016-17 reports that prevalence of tobacco use among people in Chhattisgarh state is 39.1% which is higher than prevalence in India (28.6%).<sup>4</sup>

This study aimed to develop an awareness among the migrant labourers regarding ill effects of tobacco and pan chewing thus resulting in improving knowledge, change in their attitude and will result in decreased or no consumption of tobacco and related products. The objectives of this experimental study was to assess the tobacco and pan chewing habits, and effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing among migrant labourers of Raipur district, Chhattisgarh.

### MATERIALS AND METHODS:

A community based cross-sectional study was done among migrant labourers residing in Raipur district, Chhattisgarh. The study adopted a quantitative approach and used experimental design to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing. The study population included migrant labourers who are residing in Chhattisgarh state. The samples included 60 migrant labourers within the age group of 20-40 years residing in Raipur district of Chhattisgarh state who met the eligibility criteria and the samples included were enrolled to the study through convenient sampling. The study setting was migrant labourer's colonies of Tatibandha area in Raipur district. The migrant labourers who are in the age group of 20-40 years and who can understand and communicate in Hindi was included in the study and people who are seriously ill or sick were excluded.

The knowledge of migrant labourers was assessed using a structured knowledge questionnaire prepared by the investigators after ensuring the validity and reliability. The questionnaire included items regarding

to tobacco products, and health hazards due to tobacco usage and data was collected through interview technique.<sup>5-10</sup> The researchers also collected data on demographic details of the samples and habits of tobacco and pan chewing through structured tool and interviewing the samples. A video including introduction to tobacco and pan chewing, ill effects of tobacco and pan chewing, ways to avoid tobacco and pan chewing habits was prepared by the researchers and validated by experts from different disciplines.<sup>5-10</sup> The study was completed within 9 months.

The study proceeded after obtaining ethical approval from Institutional ethics committee, AIIMS Raipur. Confidentiality of the study participants was maintained throughout the study. The required numbers of subjects were selected from the households of the selected settings by convenient sampling. The subject information sheet was explained to the samples and informed consent was obtained. All the recruited subjects were the residents of the area and migrant labourers satisfying the inclusion criteria. The samples were interviewed using the structured tool and collected data on their demographic details, habits on tobacco and pan chewing and knowledge regarding ill effects of tobacco and pan chewing. After pretesting the sampling, video assisted teaching was delivered to all the samples in group for a period of 30 minutes with the use of LCD. The post test was carried out on 7<sup>th</sup> day after the teaching programme.

Data was analysed using Descriptive and inferential statistics. Analysis was done by mean and standard deviation for quantitative variables, frequency & proportion for categorical variables. The effectiveness of video assisted teaching was analysed using t test. The data was expressed in tables and figures.

### RESULTS:

The results of the study were organised under different sections. In the first section the demographic variables of the samples were analysed using frequency and percentage, in next section, habits on tobacco and pan chewing among the migrant labourers were analysed using frequency and percentage. In section 3 the level of knowledge was analysed using mean and standard deviation and section 4 explains the effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing analysed using t test.

Among 60 migrant labourers, 30 each were in the age group of 20-30 years and 31-40 years and 58.4% of samples consisted of males and 41.6% were females. The educational status of the samples were categorised as illiterate, primary, secondary, graduate and above

which included 8.3%, 31.7%, 35% and 25% of samples respectively. Majority of the samples (31.6%) were having the monthly family income in the range of Rs. 2500-4999.

**Table 1: Frequency and percentage distribution of demographic characteristics of migrant labourers**

n=60		
Variables	Frequency	Percentage
Age in years		
20-30	30	50
31-40	30	50
Gender		
Male	35	58.4
Female	25	41.6
Educational status		
Illiterate	5	8.3
Primary	19	31.7
Secondary	21	35
Graduate and above	15	25
Monthly family income in Rupees		
<1000	6	10
1000-2499	18	30
2500-4999	19	31.7
5000-9999	17	28.3

Among the study population, 48.3% were having a habit of tobacco and pan chewing and 70% among them were having this habit for more than 2 years. Seventy two percentages reported that they have seen the warning information on tobacco and pan covers and only 13.79% always worry about their health condition due their habit of tobacco and pan chewing. Majority of tobacco users (72.4%) reported that they are using smoking tobacco. Forty one percentage are using tobacco at home and outside with their friends and 59% of them are using 2- 5 packets of tobacco/pan daily. The reason to start tobacco usage was reported as pleasure by 48.3% and due to stress by 24.1% of samples. The reasons for tobacco and pan chewing habit were reported as relaxation /pleasure (75.9%), stress relief (69%), and difficulty to refrain (55.2%). Seventy percentages reported that they thought of quitting the habit and 34.48% reported that they are willing to quit tobacco and pan chewing. The samples reported that their friends (43%), parents (17%), and siblings (25%) are/were using tobacco. Twenty eight percentages reported that they have some information regarding ill effects of tobacco and pan chewing and most of them (56.3%) received the information from media.

**Table 2: Frequency and percentage distribution of habits on tobacco and pan chewing among the samples**

n=60 *n=29		
Variables	Frequency	Percentage
Number of samples having habit of tobacco/ pan chewing	29	48.3
Duration of tobacco/ pan chewing*		
Less than 1 year	4	13.8
1-2 years	5	17.2
More than 2 years	20	70
Samples who have seen warning information on tobacco/pan cover*	21	72.4
Have worry about health condition due to tobacco/pan chewing*		
Always	4	13.8
Sometimes	22	75.9
Never	3	10.3
Type of tobacco usage*		
Smoking	13	44.8
Non smoking	8	27.6
Both	8	27.6
Place of using tobacco*		
Only at home	3	10.3
Only outside	14	48.3
At home and outside	12	41.4
No of tobacco packets usage per day*		
1 packet	11	37.9
2-5 packets	17	58.6
>5 packets	1	3.5
Reason to start tobacco usage*		
Peer pressure	4	13.8

Pleasure	14	48.3
Stress	7	24.1
Other reasons	4	13.8
Reasons for continuing the habit of tobacco and pan chewing*		
Pleasure	22	75.9
Stress relief	20	69
Difficult to refrain	16	55.2
Number of samples thought of quitting tobacco*	20	68.9
Number of samples willing to quit*	10	34.5
Tobacco usage by others in the family/society		
Friends	26	43
Parents	10	17
siblings	15	25
Number of samples had previous knowledge on ill effects of tobacco / pan chewing	16	26.7
Source of information:		
Others (Health professionals, Books, Friends)	7	43.7
Media	9	56.3

The knowledge level among the samples was assessed and the results showed that 70% of the samples have inadequate knowledge regarding ill effects of tobacco and pan chewing.

The effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing was analysed to test the following hypothesis.

H0: There will be no significant difference in the mean pre and post intervention scores of knowledge among migrant labourers Hypothesis was tested using paired test. The calculated t value was 17.01 and was greater than table t value (2.00) at 0.05 level of significance and df=59. Hence the above null hypothesis was rejected and research hypothesis was accepted. The results were interpreted as video assisted teaching was effective in improving the knowledge regarding ill effects of tobacco and pan chewing among migrant labourers.

**Table 3: Paired t test on effectiveness of video assisted teaching on knowledge regarding ill effects of tobacco and pan chewing among migrant labourers**

Knowledge scores	Mean	Standard deviation	Calculated t value	Tabled t value	p	df
Pretest	9.08	2.50	17.01	2.00	0.05	59
Post-test	14.98	4.07				

**DISCUSSION:**

WHO describes tobacco usage among young people as paediatric disease or paediatric epidemic. This is because majority of the new users of tobacco are youth and most of them start tobacco use before 18 years and almost a quarter of them starts before age of 10 years. <sup>11</sup>The present study had included samples in the age group of 20-40 years and found that 48.3% have the habit of tobacco /pan chewing and 70% among them were having this habit for more than 2 years. According to the Global Adult Tobacco Survey done in accordance with WHO in 2016-17 reports that prevalence of tobacco use among people in Chhattisgarh state are 39.1 which are higher than prevalence in India (28.6).<sup>10</sup> WHO projects that 250 million of the children who continue to use tobacco to adulthood will die because of tobacco related disease. In India as per WHO fact sheet, the Mean age at initiation of daily smoking in India is 18.7 years. The WHO report also tells that majority (80%) of tobacco users are from low or middle income countries.<sup>11</sup> A pilot study done among the Gutka Users and Non-users in Chitrakoot, India reported that users are consuming Gutka per day ranged between 1-50, with a modal value of thrice daily. <sup>12</sup> Similar findings was also reported in a study on oral smokeless tobacco use among migrant labourers and their attitude towards tobacco cessation in an urban settlement in Ernakulam district of Kerala. The study found that prevalence of oral smokeless tobacco among migrant labourers was 32.85%. The samples reported that they used tobacco on a daily basis (65.2%).<sup>13</sup> A study done in Durg-Bhilai district of Chhattisgarh among Beedi rolling workers to assess the prevalence of tobacco-related habits and its associated lesions/conditions also reported similar findings. The study reported that prevalence of tobacco use was found to be 82.2%, with 15 (8.1%), 101 (54.6%), and 19.5% of workers involved in smoked, smokeless, and dual use, respectively<sup>14</sup>.

Second hand smoke is also viewed as a serious threat for children because 40% of children below 14 are exposed to second hand smoke

and 28% of deaths occurred in children is due to second hand smoke<sup>3</sup>. The present study reports that majority of tobacco users (72.4%) reported that they are using smoking tobacco. 51.8% are using tobacco at home and/or outside with their friends and 59% of them are using 2-5 packets of tobacco/pan daily. This can lead to second hand smoke also which will affect other adults and children at home. The global statistics reported by WHO depict that 8 million people die each year from tobacco usage and among those 1.2 million deaths are due to second hand smoke<sup>4</sup>.

In the present study, the reason to start tobacco usage was reported as pleasure by 48.3% and due to stress by 24.1% of samples. The reasons for tobacco and pan chewing habit were reported as relaxation /pleasure (75.9%), stress relief (69%), and difficulty to refrain (55.2%). A pilot study done among the Gutka Users and Non-users in Chitrakoot, India reported that majority (53%) of users claimed that they had taken up the habit as a result of peer pressure. Women reported that they had adopted the habit during pregnancy to improve the taste in their mouth, and had then become 'hooked' on it. A significantly larger proportion of users (16/57) thought that gutka was 'helpful' to relieve tension, help concentration, combat bad breath and provide 'a leisure activity'.<sup>12</sup> The reasons for continuing the habit of tobacco and pan chewing was found similar in these studies. The present study also reports that friends (43%), parents (17%), and siblings (25%) of the samples are/were using tobacco. In the pilot study done in Chitrakoot, India All the Gutka users claimed that one or more of their family members chewed gutka, compared with only 37/67 of non-users ( $p < 0.001$ )<sup>12</sup>.

In the present study 72.41% reported that they have seen the warning information on tobacco and pan covers and 26.7% reported that they have some information regarding ill effects of tobacco and pan chewing and most of them (56.3%) received the information from media. A secondary analysis was done in 2018 from Global Adult Tobacco Survey (GATS), 2009–2010 to find the correlates of willingness to quit among smokers. Of the 11,696 smokers age 15 years and above interviewed in GATS 2009–10 India survey, 9627 responded about the willingness to quit smoking. The willingness to quit smoking was more in the younger age group compared with those who were age 65 years and above with highest willingness in the category of 15–24 years (PR : 1.54, 95% CI: 1.39–1.71). Individuals who had seen or read or heard about any antismoking messages in any media in the past 30 days were more willing to quit smoking compared with those who did not. Those who saw messages in television were more willing to quit compared with other media (PR: 1.19, 95% CI: 1.13–1.24), although other media also showed significant increase in willingness to quit. The results of these studies shows that effective awareness programmes are needed for the youth which will motivate them to quit smoking habits<sup>15</sup>. A hospital-based cross-sectional study conducted in a tertiary care government hospital of Bhavnagar city of western India found that 20% were highly dependent on smokeless tobacco and 61% had low willingness to quit tobacco.<sup>16</sup>

The present study found that knowledge level regarding ill effects of tobacco and pan chewing among majority of migrant labourers is inadequate. Similar findings were found in a study done in 2019 on oral smokeless tobacco use among migrant labourers in Ernakulum district of Kerala. The study observed that 71.74% of the users were unaware of the ill effects of the use of smokeless tobacco. But 69.57% of them were not interested in quitting this habit which was contradictory to the present study findings.<sup>13</sup> The study done among beedi rolling workers of Durg-Bhilai, Chhattisgarh reported that 82.1% participants had one or more oral lesions associated with tobacco chewing. Leukoplakia and oral submucous fibrosis were observed in 27.6% and 13.5% of participants, respectively.<sup>14</sup> A similar study carried out in Boileau Ganj, Shimla reports that 58% of adult population have had heard of ban on smoking in public places and 53% knew that Himachal Pradesh has been declared as a no smoke state. Only 50% of the participants had heard of Cigarettes and other tobacco products act 2003. The study interprets that the adult population have only average knowledge regarding COTPA and sensitisation programmes are needed. The study recommends that there is an urgent need to create awareness regarding the ill effects of tobacco and also to initiate cessation programs among these workers.<sup>17</sup>

The present study found that video assisted teaching was effective in improving the knowledge on ill effects of tobacco and pan chewing among migrant labourers. Similar study was done in Vadodara to assess the effectiveness of video assisted teaching on knowledge

regarding health effect of alcohol and tobacco use among non-teaching staffs. The study found that there was an increase in the post-test level of knowledge. This shows that the Video Assisted Teaching was effective on knowledge of non-teaching staff regarding health effect of alcohol and tobacco use ( $t$  value= 25.55,  $p=0.05$ ).<sup>18</sup> A study done among secondary school students in Lagos state, Nigeria to assess the effectiveness of short school-based anti-smoking program on the knowledge, attitude and practice of cigarette smoking also brings similar findings. The results showed that there were significant increments in the mean knowledge and attitude scores after the intervention. The study recommends that even brief anti-smoking programs of this nature are effective at improving the knowledge and modifying the attitude of the respondents and they will get motivated to quit the habits.<sup>19</sup> A cross-sectional study conducted in 10 government schools of rural Trivandrum district of Kerala to assess the effectiveness of School Based Anti tobacco Education. The study found that post training evaluation scores showed a significant difference (never users = 10.49 versus ever users = 8.47). The study suggests that apart from antitobacco awareness programmes, strict monitoring of trade of tobacco and alcohol is needed to curb the problem.<sup>20</sup> The studies suggest that awareness programmes are needed at different levels and different groups to improve the knowledge level of the population in regard to the ill effects of tobacco and pan chewing. The awareness programmes should be ongoing and should be clubbed with other governmental initiatives to reduce the use of tobacco and related products.

## CONCLUSION:

The main purpose of the study was to evaluate the effectiveness of video assisted teaching on knowledge regarding ill-effects of tobacco and pan chewing among migrant labourer of Raipur, Chhattisgarh. The study concluded that migrant labourers are unaware about the ill effects of tobacco and pan chewing. Many studies recommend that awareness programmes can be implemented to motivate the people to quit the habit of tobacco and pan chewing. This study attempted one such intervention, video assisted teaching and was found effective in improving awareness regarding the ill effects of tobacco and pan chewing among migrant labourers. The study recommends that further studies can be done using different strategies to create awareness among public and longitudinal studies can be undertaken to assess the long term effects of such intervention. Migrant labourers are facing many of the health problems due to poor life style and bad habits. The health issues related to the same should be addressed and corrective measures should be taken. The study had few limitations like non probability sampling method which limited the generalisation of the findings, and lack of control group which is a threat to the internal validity. The study was relevant in addressing one of the serious issues prevalent among migrant labourers and has highlighted the importance of awareness programmes among them. This will help to reduce the risk factors and improve the standard of living of these groups which is often neglected. The tobacco industries are making the selling attractive to the youth and focussing mainly on developing or underdeveloped countries for their distribution. WHO points out solutions for the problem of tobacco usage and to reduce the health risks due to the same, and one of the most important among them is enhancing preventive measures which focus on creating awareness about the health risks associated to tobacco usage and second hand smoking.<sup>1</sup>

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## REFERENCES

- World No Tobacco Day [Internet]. World Health Organization. 2020 [cited 23 April 2020]. Available from: <https://www.who.int/tobacco/wntd/en/>
- World No Tobacco Day 2020 [Internet]. Who.int. 2020 [cited 23 April 2020]. Available from: <https://www.who.int/news-room/articles-detail/call-for-nominations-to-world-no-tobacco-day-2020-awards>
- Tobacco statistics in India [Internet]. Apps.who.int. 2020 [cited 24 April 2020]. Available from: [https://apps.who.int/iris/bitstream/handle/10665/272672/wntd\\_2018\\_india\\_fs.pdf?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/272672/wntd_2018_india_fs.pdf?sequence=1)
- [Internet]. Who.int. 2020 [cited 30 April 2020]. Available from: [https://www.who.int/tobacco/surveillance/survey/gats/GATS\\_India\\_2016-17\\_FactSheet.pdf](https://www.who.int/tobacco/surveillance/survey/gats/GATS_India_2016-17_FactSheet.pdf)
- Siddiqi K, Shah S, Abbas S, Vidyasagaran A, Jawad M, Dogar O et al. Global burden of disease due to smokeless tobacco consumption in adults: analysis of data from 113 countries. *BMC Medicine*. 2015;13(1).
- Critchley J. Health effects associated with smokeless tobacco: a systematic review. *Thorax*. 2003;58(5):435-443.
- Wennberg P, Eliasson M, Hallmans G, Johansson L, Boman K, Jansson J. The risk of myocardial infarction and sudden cardiac death amongst snuff users with or without a previous history of smoking. *Journal of Internal Medicine*. 2007;262(3):360-367.
- Baker F. Health Risks Associated With Cigar Smoking. *JAMA*. 2000;284(6):735.

9. Ruhil R. Sociodemographic Determinants of Tobacco Use in India: Risks of Risk Factor—An Analysis of Global Adult Tobacco Survey India 2016-2017. *SAGE Open*. 2019;9(2):215824401984244.
10. Tiwari R, Gupta A, Agrawal A, Gandhi A, Gupta M, Das M. Women and Tobacco Use: Discrepancy in the Knowledge, Belief and Behaviour towards Tobacco Consumption among Urban and Rural Women in Chhattisgarh, Central India. *Asian Pacific Journal of Cancer Prevention*. 2015;16(15):6365-6373.
11. Tobacco [Internet]. Who.int. 2020 [cited 30 April 2020]. Available from: <https://www.who.int/news-room/fact-sheets/detail/tobacco>
12. Anwar S, Williams S, Scott-Smith J, Sage H, Baweja S, Singal M et al. A Comparison of Attitudes and Practices of Gutka Users and Non-users in Chittrakoot, India. *A Pilot. Primary Dental Care*. 2005;12(1):5-10.
13. Rameshan A, George L, Ramakrishnan D, Vasudevan A. Study on oral smokeless tobacco use among migrant labourers and their attitude towards tobacco cessation in an urban settlement in Ernakulam district of Kerala. *International Journal Of Community Medicine And Public Health*. 2019;6(5):2152.
14. Sahni H, Yunus G, Naveen N, Tiwari R, Vasant B, Suman S. "Tobacco" – The silent slayer for oral premalignant lesions/ conditions among beedi rolling workers of Durg City, Chhattisgarh, India: A cross-sectional study. *Journal of Indian Association of Public Health Dentistry*. 2019;17(2):119.
15. Kar S, Reddy M, Kanungo S, Naik B. Willingness to quit tobacco smoking and its correlates among Indian smokers – Findings from Global Adult Tobacco Survey India, 2009–2010. *Journal of Family Medicine and Primary Care*. 2018;7(6):1353.
16. Rupani M, Patel P, Gajera A. Dependence on smokeless tobacco and willingness to quit among patients of a tertiary care hospital of Bhavnagar, Western India. *Indian Journal of Psychiatry*. 2019;61(5):472.
17. Kaushal K, Dhadwal D. Knowledge about the ill effects of tobacco use and "Cigarettes and other tobacco products (Prohibition of advertisement and regulation of trade and commerce, production, supply and distribution) Act." among adult male population of Shimla City. *CHRISMED Journal of Health and Research*. 2016;3(4):279.
18. Kansagra C, Patel B, Patel B, Patel D, Patel D, Hun V. Impact of video assisted teaching on knowledge regarding health effect of alcohol and tobacco use among non-teaching staffs of SVU. 2020.
19. Odukoya O, Odeyemi K, Oyeyemi A, Upadhyay R. The effect of a short anti-smoking awareness programme on the knowledge, attitude and practice of cigarette smoking among secondary school students in Lagos state, Nigeria. *Niger Post grad Med J*. 2020;21(2):128-35.
20. Jayakrishnan R, Kumara Pillai Mohanan Nair J, Seema G, Thomas G, Sebastian P. Effectiveness of School based Awareness Programmes against Tobacco among Users and Non- Users– A Cross- Sectional Study from Rural Kerala, India. *Asian Pacific Journal of Cancer Prevention*. 2019;20(7):2027-2032.