Prevalence and pattern of use of tobacco and its association with knowledge attitude and practice of oral hygiene in the rural population of Uttar Pradesh (East).

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ABSTRACT
Background: use of smokeless tobacco in rural Uttar Pradesh.

Aims and Objectives: to find the prevalence and pattern of use of tobacco and its association with knowledge attitude and practice.

Material and Method: A random selection of a total of 1331 subjects in the study from villages of Lucknow, Kanpur area. A structured questionnaire was used as a survey tool.

Results: tobacco was the most common chewing habit (36.1%). A strong association between oral habits and knowledge attitude practice scores was observed (p<0.001). Duration of tobacco use was also associated with knowledge attitude practice scores (p<0.001).

Conclusion: there is a need for implementation of awareness and mass screening programmes to not only educate people about the ill effects of tobacco but also discourage its use because of its oral and systemic health implications.

INTRODUCTION
Chewing and smoking of tobacco along with consumption of alcohol are some of the common social habits in India.[1] The Portuguese introduced tobacco in India about 400 years ago and since then it has become a part of our social and cultural surrounding.[2] India is next to China in the second place as far as manufacturing and consumption of tobacco is concerned.[2,3] Tobacco consumption is one of the most important risk factors for oral cancer. Nearly 50% males and 25% females are affected by cancers related to tobacco.[6] In India beedi smoking was very popular but now smokeless tobacco is used in preparation of paan and gutkha.[5] Dry tobacco-areca nut preparations such as paan masala, gutkha and mawa are very popular amongst individuals and have a very high addictive potential. According to a survey, it has been estimated that there are 250 million users who are ten or more than 10 years of age.[5] Smoking, drinking and tobacco chewing are associated with oral lesions such as leukoplakia, oral submucous fibrosis and oral lichen planus which have a tendency for malignant transformation.[6] Tobacco consumption is one of the most important risk factors for oral cancer. Nearly 50% males and 25% females are affected by cancers related to tobacco.[7] Tobacco use survey has been conducted by us to gather data on the use of tobacco by the population. The purpose of this survey was for planning awareness programmes about the ill effects of tobacco.

MATERIAL AND METHOD
AREA OF SURVEY
A total of 1331 cases were enrolled for the cross sectional study. Villages between Lucknow and Kanpur were randomly selected for the study. A consent from the village Pradhans was taken so that they could extend their cooperation in arranging for space and minimal furniture. ASHA and Anganwadi workers, primary school teachers in these villages were contacted to ensure community mobilization.

DEMOGRAPHIC PATTERN
Subjects from all age groups without any bias for gender, caste or creed were considered.

SURVEY TOOL
A self-administered structured questionnaire was developed in which questions were related to knowledge attitude and practice. The scoring was done on the basis of Likert’s scale. All questions related with knowledge had 4 correct answers; the respondent was awarded 1 point for each correct answer. All questions related with attitude were scored from 0-4 where 0 depicts the most negative and 4 the most positive response. For questions related to practice, a score of 0 indicated the most negative while a score of 4 gave the most positive response. For the question related to adverse habits, a score of 4 was the most positive response and 1 mark was deducted for every adverse habit.

STATISTICAL ANALYSIS
It was done using SPSS software version 15.

RESULT
Table 1: Descriptive Data regarding dental hygiene and health related Knowledge, Attitude and Practices

<table>
<thead>
<tr>
<th>SN</th>
<th>Variable</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food items having adverse impact on dental health</td>
<td>0</td>
<td>4</td>
<td>1.25</td>
<td>0.95</td>
</tr>
<tr>
<td>2.</td>
<td>Substances that make teeth stronger and healthy</td>
<td>0</td>
<td>4</td>
<td>1.27</td>
<td>0.98</td>
</tr>
<tr>
<td>3.</td>
<td>Good oral hygiene products</td>
<td>0</td>
<td>4</td>
<td>1.77</td>
<td>1.10</td>
</tr>
<tr>
<td>4.</td>
<td>Adverse oral habits</td>
<td>0</td>
<td>4</td>
<td>1.52</td>
<td>0.97</td>
</tr>
<tr>
<td>5.</td>
<td>Gum bleeding and dental caries</td>
<td>0</td>
<td>4</td>
<td>1.05</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Knowledge

Attitude

Practices

Mean knowledge scores for different aspects were less than 2 for all the items, thereby indicating poor awareness regarding dental hygiene and oral health.

However, mean scores of attitude were above 2 for all the items except use of fluoridated toothpaste. Maximum positive scores for attitude were observed for the item visiting dentist regularly and use of pan/pan masala and tobacco.

For practice dimension, mean scores were maximum for use of pan/pan masala and tobacco and minimum for visiting a dental
Council of Medical Research in Karnataka and Uttar Pradesh found that more than 15 years and above were tobacco users. Survey conducted by the Indian Council of Medical Research in 2003[8], it was found that 30 percent of the population aged 15 to 24 years was tobacco users. It was similar to the prevalence in other studies. Global Adult Tobacco Survey conducted in several countries in 2000[9], it was found that 30 percent of the population aged 15 to 24 years was tobacco users. It was also similar to the prevalence in other studies. Tobacco use was quite common (36.1%), chewing tobacco was the most common habit (23.8%) followed by smoking (14.7%), pan masala with tobacco use (13.1%) and pan masala without tobacco use (2.2%). 70% males and 22.2% females were addicted to tobacco. A significant association between adverse oral habits and KAP scores was observed (p<0.001) for all the habits except use of pan masala with tobacco use (13.1%) and pan masala without tobacco use (2.2%).

<table>
<thead>
<tr>
<th>Addictive habits</th>
<th>Total no. of cases</th>
<th>% poor scores</th>
<th>% Fair scores</th>
<th>% Excellent scores</th>
<th>X2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco use</td>
<td>827</td>
<td>34.1%</td>
<td>41.5%</td>
<td>24.4%</td>
<td>27.4</td>
<td>26.955 &lt; 0.001</td>
</tr>
<tr>
<td>Chewing tobacco</td>
<td>317</td>
<td>23.8%</td>
<td>27.1%</td>
<td>49.5%</td>
<td>93</td>
<td>12.864 &lt; 0.001</td>
</tr>
<tr>
<td>Smoking</td>
<td>195</td>
<td>14.7%</td>
<td>15.9%</td>
<td>69.3%</td>
<td>42</td>
<td>26.907 &lt; 0.001</td>
</tr>
<tr>
<td>Pan Masala with Tobacco</td>
<td>175</td>
<td>13.1%</td>
<td>13.3%</td>
<td>73.6%</td>
<td>42</td>
<td>16.466 &lt; 0.001</td>
</tr>
<tr>
<td>Pan Masala without Tobacco</td>
<td>29</td>
<td>2.2%</td>
<td>21.2%</td>
<td>76.5%</td>
<td>28</td>
<td>1.332 0.249</td>
</tr>
</tbody>
</table>

Duration of use
- Non-users: 850 (63.9%) 484 (58.5%) 366 (41.5%) 72.6% 30.5% < 0.001
- <5 Yrs: 136 (10.2%) 88 (10.6%) 48 (5.8%) 9.5%
- 6-10 Yrs: 142 (10.7%) 105 (12.7%) 37 (4.7%) 7.3%
- >10 Yrs: 203 (14.5%) 180 (18.1%) 53 (10.5%)

Use of alcohol was also significantly higher among those having poor KAP scores (5.6%) as compared to those having fair scores (3.0%) and the association was also significant statistically (p=0.029).

**DISCUSSION**

**Prevalence of tobacco use**

Tobacco abuse was the most common habit in our study which was 36.1%. The prevalence of tobacco use in the present study was found to be similar to the prevalence in other studies. Global Adult Tobacco Survey India (GATS India)[4] found the prevalence of 35% in the population aged 15 years and above. In a study conducted by Rani et al in 2003[8], it was found that 30 percent of the population aged 15 years and above were tobacco users. Survey conducted by the Indian Council of Medical Research in Karnataka and Uttar Pradesh found the prevalence of tobacco use as 29.6% in Karnataka and 34.6% in Uttar Pradesh[9].

**Sex and tobacco use.**

In prevalence surveys in eight rural areas in India, smokeless tobacco use was 3-53% in men and 3-49% in women [10-13].

In our study 77.8% males and 22.2% females were addicted to tobacco. Rani et al[8], in their study found that, 47% men and 14% of women used tobacco in smoked or smokeless forms. Sen et al[14] in their study reported the male and female ratio of tobacco use to be 36% and 19% respectively.

**Knowledge and tobacco use**

Tobacco use was found more common among the uneducated people in the country. Education was one of the most important determinants of tobacco use irrespective of the type of use. Uneducated males and females in India were at a higher risk of using tobacco. This can often be attributed to less knowledge and awareness among the uneducated people. Being poor was significantly associated with a higher risk of use of smokeless tobacco among males, and use of smokeless tobacco and dual use of tobacco among females in India. The relation between these socioeconomic markers and tobacco consumption is similar to relations observed in developed countries and other studies done in previous decades in India [8], [15]. This study also shows that, in India, the non-awareness of health hazards increases the likelihood of using tobacco. The risk of consuming other forms of tobacco use was also significantly affected by the non-awareness of the selected health hazards of tobacco use. Other studies suggest that the knowledge of health hazards of tobacco is significantly related to avoidance behaviour. The severity of health risks is though sometimes not adequately understood by tobacco users [16].

**Oral hygiene knowledge, attitude and practice**

It has been observed that oral hygiene has mostly remained as an ignored and unrealized major social problem. Majority of the people are unaware about the relationship between oral hygiene and systemic diseases or disorders. Many diseases show their first appearance through oral signs and symptoms and they remain changed or untreated because of this missing awareness. This fact coincides with our study where knowledge regarding oral health was poor. Visiting a dentist is still not considered a preventive dental behavior, at present it only depends on the treatment needs. [17] The present study shows that patients visited the dentist only in case of a problem. These results are similar to the study done by Jain et al. where 54% of the subjects visited the dentists when they were in pain. [18] Very few participants in the study used fluoridated toothpastes and brushed twice, which is very less as compared to United States where 90% of the studied group was doing the same. [19] There is generally a failure in the use of interdental aid as a preventive tool. In a study conducted in Saudi Arabia in 2001, where no subject used dental floss for interdental cleaning, which is similar to our results. [20]

**CONCLUSION**

There was a substantial use of smokeless tobacco in our study coupled with poor knowledge attitude and behaviour. It is therefore necessary to implement intervention at various levels with a pronged strategy of awareness and education programmes for the rural masses so that the use of smokeless tobacco is discouraged.

**REFERENCES**

9. Dr. Kishore Chaudhry Deputy Director General Indian Council of Medical Research Prevalence of Tobacco Use in Karnataka and Uttar Pradesh in India 2001.2