ORIGINAL ARTICLE

Gutkha ban - A myth?

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Abstract

Background: Gutkha contains harmful and carcinogenic chemicals. The government of Karnataka banned the manufacture, storage, distribution, and sale of gutkha and paan masala on 31st May 2013.

Objectives: The objective of the present study was to know the impact and awareness of gutkha ban after 2 ½ years on self-reported gutkha users among migrant workers in Tumkur city, Karnataka.

Materials and Methods: A cross-sectional study was conducted among self-reported gutkha using migrant workers in and around Tumkur city. The migrant workers working in construction sites such as roads and buildings were interviewed.

Results: The study was conducted among 124 migrant construction workers of which 98 were male and 26 were female aged between 18 and 57 years. 16 (12.90%) of them reported to have quit the habit of chewing gutkha after the ban. These 16 people who reported to have quit the use of gutkha were using other forms of tobacco with three resorting to smoking and 13 using khaini.

Conclusion: Despite the ban persons with a habit of tobacco usage had not quit the tobacco. The call of the hour is to educate and reinforce the ill effects of gutkha among its users along with the regulatory approach. If the ban has to be effectively implemented, “chewing tobacco” must also be brought under the ambit of the Act and its sale must be regulated or banned.

Introduction

There are approximately 274,000 new cases of oral cancer every year worldwide. Oral cancer is a major public health problem in South Asian and South-East Asian countries. India accounts for one-third of the world’s oral cancer burden with a high incidence of oral cancer. The majority of the cases of oral cancers are preceded by potentially malignant disorders which are most often caused by the use of tobacco in some or the other form.[1]

Our country is oral cancer capital of the world due to rampant tobacco chewing habit. In India, tobacco usage is responsible for 1.5 lakh cancers every year, and 2500 persons die every day due to tobacco-related diseases.[2] The deaths attributable to tobacco are expected to rise up to 13.3% by 2020.[3]

Although there are many attempts to create public awareness about ill effects of tobacco since years, India is the second largest producer and the second largest consumer of tobacco in the world after China.[4] It is reported that there are more than 250 million smokers and almost same number of tobacco chewers in the South East Asian region.[5] Presently, India has more than 200 million tobacco users,[6] and the use of oral smokeless tobacco is the major form of tobacco addiction. Oral smokeless tobacco products are highly addictive and known to cause cancer.[1]

The government spends billions of rupees annually in both public and private on the treatment of tobacco-related illnesses which accounts for one-fourth of health budget.[6] As tobacco being the single most avoidable risk factor for cancer prevention,[2] in the year 2003, The Government of India notified a comprehensive tobacco control legislation titled “The Cigarettes and Other Tobacco Products Act (COTPA).”[4] Under this Act, Karnataka is the 26th state to ban sale, manufacture, storage, and distribution of gutkha and paan masala on 31st May 2013.[5] As gutkha has addictive potential, studying the effectiveness of the ban on its regular consumers is essential to know if the ban has created any awareness and has prompted quitting the habit among users. The present study was undertaken to know the impact and awareness of the gutkha...
Materials and Methods

This is a cross-sectional study conducted among a sample of 124 self-reported gutkha using migrant workers in and around Tumkur 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. The study was conducted for a period 2-month from December 2015 to January 2016. The participants were given a structured and pretested questionnaire by the investigator to assess usage, awareness, and impact of gutkha ban. Assistance was provided to respondents who could not read the questionnaire. The data were compiled with SPSS 16, and the impact and awareness of gutkha ban were analyzed.

Results

The present study was conducted among 124 migrant construction workers of which 98 were male and 26 were female aged between 18 and 57 years. The self-reported gutkha users were recruited in the study. 16 (12.90%) of them reported to have quit the habit of chewing gutkha after the ban. We found that percentage of females (15.38%) quitting gutkha chewing was slightly more than that of males (12.24%). It was found that a maximum number of gutkha users were of the age group 31-40 years. A higher percentage of quitters (26.92%) had an education level of matriculation and above. Most of the respondents had started consuming gutkha before the age of 30 with 54 of them started using it before 20 years of age. 98 of the respondents were using gutkha for more than 6 years with 52 of the musing it for more than 10 years [Table 1].

Out of 124 respondents, 112 were aware of the ban on gutkha, but 12 persons were not aware of the gutkha ban [Graph 1]. 76 respondents reported non-availability of gutkha, whereas 48 said it was still available [Graph 2]. Of the 16 people who reported to have quit the use of gutkha had been using other forms of tobacco with three resorting to smoking and 13 using khaini [Graph 3].

Discussion

Oral cancer is one of the common malignancy in India, which is a serious health concern caused due to tobacco usage. In India, usage of smokeless tobacco is more rampant than smoking tobacco.[5] Population-based registry in India has reported that more than 50% of the cancers are related to tobacco consumption.[6] The oral consequences of consuming either smoked or smokeless tobacco range from staining of teeth and periodontal problems to potentially malignant disorders which can turn into life-threatening oral cancer.[6] Despite the warnings and knowledge about ill effects of tobacco use, tobacco consumption remains the primary preventable cause of death due to malignancy.[1]

Table 1: Analysis of variables and its relationship to quitting the habit

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gutkha users</th>
<th>Quitters after the ban</th>
<th>Quitters (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>98</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Age</td>
<td>&lt;30</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>56</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>&gt;40</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>Education</td>
<td>Illiterate</td>
<td>42</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Matriculation</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Matriculation and above</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>Age at initiation</td>
<td>10-20</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>21-30</td>
<td>46</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>&gt;40</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Duration of use (years)</td>
<td>1-5</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td>46</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>&gt;10</td>
<td>52</td>
<td>2</td>
</tr>
</tbody>
</table>

Graph 1: Awareness of gutkha ban

Earlier, tobacco was used as an entheogen by Native Americans in the form of chewing tobacco. It was introduced to Indians by Portuguese in the 17th century as a barter commodity to trade for Indian textile. Later, British East India Company encouraged tobacco as cash crop in India and promoted its domestic usage and foreign trade. At present, the tobacco industry has grown and is well established in India.[5]
Chewing tobacco products are highly addictive and are proven to cause oral cancer. They are also used as an alternate by cigarette smokers in situations where smoking is not allowed, promoting dual use of smokeless and smoked products. In India, most commonly paan, a betel quid mixture containing areca nut, betel leaf, slaked lime which is considered to aid digestion, is commonly consumed after meals. Incorporating tobacco into this paan increases its addiction potential. The speed of absorption of nicotine, which is present in tobacco, is considered to be pH-dependent. Hence, buffering substances such as ashes, calcium hydroxide (slaked lime), or sodium carbonate are added to raise the pH, which aids quicker absorption and a stronger nicotine effect or "kick."[1]

Gutkha is sweetened, flavored mixture of areca nut, catechu, slaked lime, condiments, and powdered tobacco, which is major commercially manufactured oral smokeless tobacco in India and South-East Asia region. The same mixture without added tobacco is paan masala. It is available in small, attractive, low-cost packaging. The usage of this gutkha is reported to cause potentially malignant disorder - oral submucous fibrosis manifesting debilitating features named as “Gutka syndrome or Areca Nut Chewer’s syndrome” by Chaturvedi.[9] In India, gutkha has gained popularity among younger population and women, as it is easy for them to use tobacco without attracting much attention.[1]

To control the tobacco menace, the Government of India implemented COTPA in the year 2003. The provisions under this Act include – “prohibition of smoking in public places, prohibition of advertisements of tobacco products, prohibition on sale of tobacco products to and by minors (persons below 18 years), ban on sale of tobacco products within 100 yards of all educational institutions and mandatory display of pictorial health warnings on tobacco products packages.”[4] Under this Act, Karnataka became the 26th state to ban sale, manufacture, storage, and distribution of gutkha and paan masala on May 2013. Hence, the present study was conducted on self-reported gutkha and pan masala users among migrant construction workers at Tumkur city after about 2 ½ years of gutkha and pan masala ban by Government of Karnataka to assess the impact and awareness of gutkha ban.

In the present study, out of 124 respondents, 112 (90.32%) of them were aware of the ban. Similar results were reported by studies conducted by Mishra et al.[9] Many of the respondents had come to know about the ban through electronic media and newspaper, which was also appreciated by other studies.[6,10] Although 16 (12.90%) of the respondents reported to quit the habit of gutkha chewing, they had resorted to the usage of other forms of tobacco in contrast to the findings of other studies.[9,11] Knowledge about the ban did not discourage the respondents to quit the habit of tobacco. Majority of respondents were unwilling to quit the habit despite the ban or the pictorial warnings on the packets. As the electronic media and newspaper were playing role in creating awareness about the ban, they can also be helpful in educating the population about the ill effects of tobacco usage which can motivate them to quit tobacco habit.

Although in our study 38.7% of them claimed availability of gutkha, pouches with the name tag “gutkha” were unavailable in the market. This is in contrast to studies done by Mishra et al.[9] where 43% claimed availability of gutkha after ban at an increased price. Gutkha may be banned in the state and is not available as sachets labeled “gutkha” but is still available in a different way. Instead of selling gutkha in a single sachet, companies are selling it in a new legal manner, where chewing tobacco and pan masala are sold in two different sachets, which when mixed make up for gutkha [Figure 1].[12,13]

It was found that the education level of the respondents definitely mattered in awareness as a higher percentage of quitters (26.92%) had an education level of matriculation and above. Age at initiation of the habit and duration of usage of the gutkha were the factors which dictate the addiction level. Most of the respondents had started consuming gutkha before the age of 30 with 54 of them started using it before 20 years of age. 98 of the respondents were using gutkha after 6 years with 52 of them using it for more than 10 years. Only around 4% of the persons who had started the habit at the age of 10-20 years and who had used gutkha for more than 10 years had quit the habit. Higher the duration of usage less was the chances of quitting.

A major concern is the availability of paan masala and tobacco which can be mixed to make up for gutkha even after the legal ban as reported by many users. Availability of tobacco products in the market even after ban has been reported in other studies.

[Graph 2: Availability of gutkha]

[Graph 3: Coping with gutkha ban]
Whatever may be the form in which tobacco is consumed, the truth is, all tobacco products are hazardous and addictive. Hence, effort should be made to discourage the use of tobacco in any form by creating awareness about its harmful effects. The call of the hour is to educate and reinforce the ill effects of gutkha among its users along with the regulatory approach. If the ban has to be effectively implemented, “chewing tobacco” must also be brought under the ambit of the Act and its sale must be regulated or banned.

References
