

## Review Article

**Nicotiana Tabacum - Current Scenario of Tobacco****C. Ramasamy<sup>1\*</sup> and N.Sridhar<sup>2</sup>**<sup>1</sup>Faculty of Dentistry, AIMST University, Semeling, 08100 Bedong, Kedah Darul Aman, Malaysia.<sup>2</sup>Ultra College of Pharmacy, Tahsildar Nagar, Madurai, Tamilnadu, South India.**ABSTRACT**

This is a review paper which briefly updates the current scenario of tobacco in India. The statistical status and the mandatory tobacco control measures are the highlights of this paper which have been briefly discussed. At present, tobacco smoking is causing over 3 million deaths a year worldwide, and if current smoking trends continue, the annual mortality will exceed 10 million by around 2030. In India 65% of men and 33% of women use tobacco Every day, more than 3,800 persons younger than 18 years of age smoke their first cigarette. To increase the awareness among the people about the ill effects of tobacco, the Ministry of Health and Family Welfare (MHFW), GOI, has launched the National tobacco control programme. Conducting public health awareness programmes, educating and training the health professionals and incorporating anti tobacco lectures in the curriculum will have a nationwide impact on tobacco cessation. Dentists should be motivated to participate in cessation activities and impart counselling to patients in their routine practice. The oral health institutions should also encourage, including anti- tobacco related subjects in the curriculum so that it provides professional skills as counsellor to the dentist.

**Keywords:** Tobacco control, National Tobacco Control Programme, Hazards of tobacco.**INTRODUCTION**

The Tobacco plant, *Nicotiana tabacum* has probably been responsible for more deaths than any other herb. Smoking causes cancer, heart disease, stroke, and lung diseases (including emphysema, bronchitis, and chronic airway obstruction). At present, tobacco smoking is causing over 3 million deaths a year worldwide, and if current smoking trends continue, the annual mortality will exceed 10 million by around 2030.<sup>1</sup>

Tobacco kills in many forms, but accurate estimates of the number of people actually dying due to this are not available. Jha et al. have stated that in India, the younger generation is consuming more tobacco.<sup>2</sup>

A systematic review of articles on the prevalence of adult smoking found that more than 1.1 billion people worldwide smoke, with about 82% of smokers residing in low and middle income countries.<sup>3</sup> The risk of death associated with smoking is high and about half to two-thirds of long term smokers eventually die because of their addiction. About half of all tobacco deaths occur between 35 and 69 years of age, resulting in the loss of 20-25 years of life, compared with the life expectancy of non-smokers.<sup>4</sup>

**STATISTICAL STATUS**

It is estimated that about 5 million people die annually worldwide due to tobacco use, accounting for 1 in every 5 male deaths and 1

in 20 female deaths of those > 30 years of age. Tobacco causes a huge economic loss to India. The cost of tobacco-attributed burden of 3 groups of diseases- cancer, heart and lung was estimated to be Rs. 308.333 billion in 2002-2003.<sup>5</sup>

There are many ways to prevent the untimely deaths of millions of people worldwide due to tobacco products. Studies have shown that cessation of smoking reduces the risk of many smoking related morbidities. A study among men in four European countries has shown that for men who quit smoking at the age of 40 years, the excess lung cancer risk avoided was 85%, 91% and 80% in the United Kingdom, Germany and Italy, respectively.<sup>6</sup> There are many ways by which the demand for tobacco may be reduced. In high-income countries taxes on tobacco products are high, whereas these are low in low and middle income countries such as India. Many studies from high-income countries show that an increase in taxes on cigarettes and other tobacco products are high, whereas these are low in low and middle income countries such as India. Many studies from high income countries show that an increase in taxes on cigarettes and other tobacco products led to a significant reduction in cigarette smoking and other tobacco use.

In the United States, tobacco use is responsible for about one in five deaths annually (i.e., about 443,000 deaths per year,

and an estimated 49,000 of these smoking-related deaths are the result of second hand smoke exposure). Cigarette smoking costs more than \$193 billion (i.e., \$97 billion in lost productivity plus \$96 billion in health care expenditures)<sup>7</sup>. For every person who dies from a smoking-related disease, 20 more people suffer with at least one serious illness from smoking.<sup>8</sup> Worldwide, tobacco use causes more than 5 million deaths per year and current trends show that tobacco use will cause more than 8 million deaths annually by 2030<sup>9</sup>

On an average, smokers die 13 to 14 years earlier than non smokers.<sup>10</sup> The cigarette industry spends billions each year on advertising and promotions.<sup>11</sup> State spending on tobacco control does not meet centers for disease control recommended levels.<sup>12, 13</sup> According to Morbidity and Mortality Weekly Report 2011, in United States, 19.3% of all adults (45.3 million people), 31.4% Non-Hispanic American Indian/Alaska Native, 25.9% Non-Hispanic multiple race, 21.0% Non-Hispanic white, 20.6% Non-Hispanic black, 12.5% Hispanic, and 9.2% Non-Hispanic Asian were smokers.<sup>14</sup> National Survey on Drug Use and Health has revealed that thousands of young people begin smoking every day.<sup>15</sup> Every day, more than 3,800 persons younger than 18 years of age smoke their first cigarette. Each day, about 1,000 persons younger than 18 years of age begin smoking on a daily basis.

### TOBACCO CONTROL MEASURES

Many adult smokers wish to quit smoking. Results from a survey conducted in US 2010 states that 69% of smokers preferred to quit completely and approximately 52% of smokers attempted to quit.<sup>16</sup> Extended cognitive behavioural treatment (E-CBT) for tobacco dependence has yielded impressive long-term abstinence rates. To delineate the processes underlying this potent intervention, Hendricks et al. (2010) evaluated several potential mediators of E-CBT's impact on cigarette use. The authors found that E-CBT increased abstinence self-efficacy over the course of treatment. This effect, in turn, was positively associated with non-smoking. Abstinence self-efficacy accounted for 61% to 83% of the effect of E-CBT on cigarette use. These findings suggest that boosting individuals' confidence in their ability to quit may be the best method for enhancing the efficacy of existing tobacco dependence interventions.<sup>17</sup> An increasing number of research and policy experts believe that reducing the nicotine delivery in tobacco products to non-addictive

levels could be the ultimate harm reduction policy intervention. However, few studies have addressed whether or not reducing nicotine in cigarettes is a viable public health policy measure.<sup>18</sup> Health professionals in developed countries, by being exemplars through quitting smoking, not taking up smoking, using effective smoking cessation interventions, or by leading influential advocacy networks have influenced cessation rates in the general population.<sup>19, 20</sup> To increase the awareness among the people about the ill effects of tobacco, the Ministry of Health and Family Welfare (MHFW), GOI, has launched the National tobacco control programme. The NTCP actively implements the anti-tobacco act in the form of seminars, exhibitions and letters.<sup>21</sup> To spread the message effectively nationwide, website has been launched by the Public Health Foundation of India. [PHFI]<sup>22</sup> Mishra et al, documented that the quit rate was high in 2010, due to the various cessation programmes conducted in India.<sup>23</sup> The dentists, doctors, and pharmacists should also be trained, so that they can effectively create the awareness of tobacco products. Oral health professionals should play a major role in the cessation activities. Dentists should be motivated to participate in these activities and impart counselling to patients in their routine practice. The oral health institutions should also encourage, including anti-tobacco related subjects in the curriculum so that it provides professional skills as counsellor to the dentist.<sup>24</sup>

### CONCLUSION

In India 65% of men and 33% of women use tobacco (WHO, 1997). Mehrotra et al have predicted that, 13% of death rate in India would be attributed due to tobacco use by 2020.<sup>25</sup> Annually about 1 in 10 deaths is projected to be related to smoking in the 2010s.<sup>26</sup> Awareness of health effects of tobacco was average in our study population. This could be because our respondents were students who had yet to complete their training in pharmacology and clinical medicine. Knowledge among medical and nursing students is critical given that it is now understood that tobacco use is a leading cause of death and disease burden, and cessation is crucial.<sup>27</sup> Most tobacco-related deaths in the coming decades are likely to be seen in low and middle income countries. Conducting public health awareness programmes, educating and training the health professionals and incorporating anti tobacco lectures in the curriculum will have a nationwide impact on tobacco cessation. The

dentists should also hold the responsibility to convince their patients about the hazards of tobacco in their daily practice.

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