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Review Article

TOBACCO CONTROL IN INDIA: AN ATTEMPT TO TAME THE CULPRIT

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ABSTRACT:

Tobacco, the world's biggest preventable killer, described as the single most preventable cause of morbidity and mortality globally, with the World Bank predicting over 450 million tobacco-related deaths in the next fifty years. The WHO Framework Convention on Tobacco Control (FCTC) emphasizes the vital contribution of participation of health professional bodies, as well as training and healthcare institutions in tobacco control efforts. The WHO programme contains several activities for controlling tobacco-related diseases; importantly, emphasis is given to tobacco prevention activities in schools and development of national and community-based tobacco programmes in low and middle income countries. The Government of India through "The Cigarettes and Other Tobacco Products Act, 2003" has provisions to prohibit the sale of tobacco products to minors as well as within 100 yards of any educational institution. Even large cigarette tax increases would result in both substantially higher quitting rates and a considerable drop in smoking intensity. Moreover, counseling from a health professional is an effective method of helping patients quit the tobacco habit. Dentists can play an important role in helping patients quit using tobacco. The dental office is an ideal setting for tobacco cessation services since preventive treatment services, oral screening, and patient education have always been a large part of the dental practice. Tobacco cessation activities should be as natural as oral hygiene measures in dental offices. Nevertheless, monitoring of effective planning and execution of programmes by appropriate authorities at regular intervals is vital for successful achievement of the goal of "Tobacco Free Society."

Key words: Tobacco. Tobacco control, India, Community

INTRODUCTION:

Tobacco is the world's biggest preventable killer as the total number of premature deaths caused by tobacco during the twentieth century has been estimated at about 100 million and, if current trends of tobacco use continue

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during the twenty-first century, the death toll is projected to go up to one billion. The World Health Organization (WHO), which provides these estimates, also predicts that India will have the fastest rate of rise in deaths attributable to tobacco in the first two decades of the twenty first century. Many of these deaths will occur in the productive years of adult life, as a consequence of an addiction acquired in youth.

Tobacco was introduced into India by Portuguese traders during AD 1600. Today India is the second largest producer of tobacco in the world. According to World health organization (WHO), nearly 1/3 rd of the global adult population (1.2 billion people, with female population being 200 million) are tobacco users. In India, there are 240 million tobacco users (195 million men and 45 million women) accounting for one fifth of the world's tobacco consuming population.[(1)] India's tobacco problem is more complex than probably that of any other country in the world, with a large consequential burden of tobacco related disease and death.[(2)]

Tobacco use causes a wide range of major diseases which impact nearly every organ of the body [(3)] which include several types of cancers, heart diseases and lung diseases. Tobacco contains the alkaloid-*Nicotine* which is the main addictive agent. There are thousands of chemical compounds present in smoked as well as unburnt tobacco. They act not only as irritants and toxins, but also are deadly carcinogens. The most potent carcinogens in tobacco are the tobacco-specific nitrosamines, polycyclic aromatic hydrocarbons, and many others.[(4)]

The multidimensional problem of tobacco and the multisectoral character of tobacco control are described to map the case for early and effective implementation of a national programme for tobacco control. Therefore, an attempt has been made to provide a comprehensive overview towards reducing the burden of tobacco in India and providing a credible basis for evolving future tobacco control policies.

TOBACCO INTERVENTIONS

1) POLICY INTERVENTIONS (COMMUNITY):

It is estimated that, as in other developing countries, the most susceptible time for initiation of tobacco use in India is during adolescence and early adulthood, i.e. in the age group of 15-24 years. The majority of users start using tobacco before the age of 18 years, while some even start as young as 10 years. It is estimated that 5500 adolescents start using tobacco every day in India, joining the 4 million people under the age of 15 years who already use tobacco regularly.[(5)] This early age of initiation points to an urgent need to plan effective interventions for this vulnerable age group.

The Government of India has been actively working towards enforcing legislations to prevent young people from having any access to tobacco. The Cigarettes and Other Tobacco Products

(Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 enforced from 1st May 2004 has provisions to protect the youth in India. The Act prohibits the sale of tobacco products to minors as well as within 100 yards of any educational institution.

Issues Involved:

Availability: The youth start using tobacco even before they can understand its consequences, and the fact that tobacco is addictive prevents them from quitting when they become aware of its harmful effects later in life. One of the goals of any tobacco control policy should be to ensure that tobacco products are neither available by direct sale nor accessible through other sources to youth.

Ban on sale to minors: Article 16 of the FCTC mentions about banning sale to minors. The existing literature provides mixed evidence on the effects of banning sale to minors in reducing tobacco use among youth.

Wassermann et al. studied the impact of state laws that restricted the sale or distribution of cigarettes to minors. They found that although these laws reduced the teenager's probability of taking to smoking, it did not affect the average consumption by young smokers. They attributed the latter to the weak enforcement of these laws and vendors, poor compliance with the law.[6] A study by Jones et al. showed that enforcement of youth access laws led to a decrease in minors purchasing in stores but there was a significant increase in giving someone else money (social source) to buy cigarettes for them.[7]

There have been different viewpoints opposing the ban on sale to minors. It has been commented that, youth access programmes which prevent the sale of cigarettes to teenagers are ineffective and a drain on limited resources. It has also been expressed that such bans are counterproductive because they reinforce the tobacco industry's 'smoking is a way to look adult' message.[8]

Non-availability of tobacco products around educational institutions: To restrict free availability of tobacco products to minors, one easy strategy is to ensure that tobacco products are not sold near educational institutions.

Increasing prices through taxation: One of the mechanisms to raise tobacco prices is taxation. A fundamental principle related to taxation is that taxes which generate substantial revenues while minimizing welfare losses associated with the higher prices resulting from the taxes, are preferable to those that result in higher welfare losses. In the short run the demand for tobacco products is relatively in elastic. Thus, an increase in tobacco taxes, although leading to reduction in use, will lead to significant increases in revenue.[9] It has been seen that young people, people belonging to a low socioeconomic group and less educated people are more price responsive.[10] It has been estimated that tax increase which would increase the real price of cigarettes by 10% worldwide will lead to

42 million smokers of the 1995 cohort quitting and would prevent 10 million premature tobacco-related deaths among them.[10] In a study in the USA, it was seen that increasing the price of cigarettes increases the number of young adults who quit smoking. The average price elasticity of cessation was .0.35, i.e. a 10% increase in price will lead to 3.5% reduction in demand.[11]

Increases in the price of cigarettes will decrease the prevalence of smoking and the number of cigarettes smoked both by the youth and adults. Lower-income and minority smokers were more likely than other smokers to be encouraged to quit in response to a price increase and would thus obtain health benefits attributable to quitting.[12]

The change in smoking behaviour is most dramatic among the youth exposed to the largest price increases, suggesting a sustained impact of higher price on cigarette consumption. Large cigarette tax increases would result in both substantially higher quitting rates and a considerable drop in smoking intensity.[13]

Restricting access through regulating packaging sizes: Ensuring that cigarettes and beedis be sold only in bigger packs of twenties or more will restrict purchase by the youth who have limited resources to buy these products. Similarly, chewable tobacco (such as gutka, khaini, etc.) is currently available in sachets, which make these products available at a very low cost. It is important that the packaging sizes of all tobacco products be regulated in India. Increasing the sizes of tobacco product packages would ensure that the cost is high enough to make it less affordable for the youth, who are tempted to experiment with these tobacco products due to their small packaging size which makes the product easily accessible to them for purchase and concealment.

Awareness and advocacy: It has been well established that awareness and advocacy related to tobacco avoidance and control prevents or reduces tobacco use among youth.[14],[15],[16] In India, it has been seen that students in whom school-based interventions were carried out were less likely to receive offers, experiment with or intend to use tobacco.[14] Among regular smokers, it was found that those who were engaged in anti-tobacco advocacy were more likely to reduce their own use. The decrease was sustained even after six months. The goal of the advocacy programme was to increase the student's awareness of the factors in the school and community environment that promote cigarette use.[15]

Comprehensive ban on advertisements and counter-advertising: A comprehensive ban includes a ban on advertisements of tobacco products in all direct and indirect forms, i.e. print and mass media, point-of-sale advertisements, ban on surrogate advertising or brand stretching, and should also include effective counter-advertising.

Tobacco advertising and promotion increases the likelihood that adolescents will start to use the product. The impact

of tobacco advertising on the youth is a well-researched area globally.

Non-smoking adolescents who were more aware of tobacco advertising or receptive to it were more likely to have experimented with cigarettes or become smokers at follow-up.[17] Receptivity to tobacco advertising and promotion is an important factor in progressing from experimentation to established smoking among adolescents.[18] Advertising lures gullible youth and children through glamorous and deceptive promotional stunts. Advertisements project tobacco use in congenial surroundings or associate the brand name with idolized role models, legitimize the habit in young minds and project the use of tobacco as being socially acceptable.

Establishing anti-tobacco norms: Social group interactions, through family, peer and cultural contexts can play an important role in reinforcing, denying, or neutralizing the potential effects of anti-smoking advertising.[19] It has been seen that peer pressure is an important influence for tobacco use among adolescents.[20] Introduction to positive, healthy role models, added to established anti-tobacco norms, can tremendously curb the desire of the youth to experiment with tobacco products.

Restriction of smoking in schools, the home and public places: Smoke-free workplaces reduce the prevalence of smoking as well as its consumption. The combined effect of people quitting smoking and reducing consumption reduces total cigarette consumption by 29%.[21]

Regulations restricting smoking in public places appear to have a considerable impact on teenage smoking behaviour. In contrast to adults, regulations affect the teenager's decision to become a smoker rather than the number of cigarettes smoked.[21] Smoking restrictions in the home and bans in public places allow a limited opportunity for smokers to smoke. The mere existence of a school ban had no effect, but enforced school bans were associated with up to 11% reduction in the uptake of smoking.[22]

Schools with smoking policies have lower rates of smoking among students.[23] Teachers who smoke make smoking seem safe and acceptable. The school policy must address both teacher's and student's smoking. Colleges with a no-smoking policy for both staff and students have been shown to have the lowest prevalence and their students smoke fewer cigarettes.[24] An Indian study also revealed that in schools which have enforced a no-smoking policy, teachers smoked less compared to schools having no such anti-smoking policy.[25]

Recommendations: Based on the evidence from global and Indian research, the following measures are recommended to protect the youth from tobacco:

1. A comprehensive tobacco control programme (including awareness and well-informed youth activism) is needed to reduce and restrict the youth from tobacco use.

2. A comprehensive ban on tobacco advertising (direct and indirect) is essential to prevent the youth from associating smoking with their role models.

3. Raising the prices of tobacco products, through taxes, and increasing the sizes of the packages are the most effective ways of preventing the youth from initiating use, as they are highly price sensitive.

4. School-based programmes should adopt a comprehensive intervention approach and ensure that the modes of communication are suitable to the targeted group's characteristics.

5. The youth, especially school students, should be encouraged to get involved in anti-tobacco advocacy and discuss policy issues related to tobacco control. Schoolteachers and parents should also be involved in these initiatives.

CONCLUSION:

Dentists play a pivotal role in preventing harmful effects of tobacco, as part of evidence-based intervention systems. In developed countries dentists have frequent contacts with a large proportion of the population, so adverse oral effects are readily detected and even the harmless ones can be used as motivation. Given the evidence, tobacco cessation activities should be as natural as oral hygiene measures in dental offices.

In the developing parts of the world like in India in particular, where dentists are much fewer, an additional strong international and national political commitment is necessary to achieve substantial gains. In this respect the WHO Global Oral Health Programme and the WHO Framework Convention on Tobacco Control are significant advances in obtaining global control of tobacco use. The WHO programme contains several activities for controlling tobacco-related diseases; importantly, emphasis is given to tobacco prevention activities in schools and development of national and community-based tobacco programmes in low- and middle-income countries.

REFERENCES:

1. Rafei U.M. Tobacco epidemic. J Indian Med Assoc. 1999; 97: 99.
2. Gupta PC, Ray CS. Epidemic in India. In: Boyle P, Gray N, Henningfield J, Seffrin J, Zatonski W (eds).Tobacco: Science, policy and public health. Oxford: Oxford University Press; 2004: 253-66.
3. U.S. Department of Health and Human Services. The health consequences of smoking: A report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2004.
4. Fali, S.Mehta, James E, Hammer. Tobacco–related Oral mucosal lesions and conditions in India.
5. Arora M, Aghi M, Reddy KS. Global Youth Tobacco Survey.Delhi report. Available from URL: http://

www.cdc.gov/tobacco/global/GYTS/reports/pdf/india_newdelhi_2001_searmo.pdf (accessed on 28 July 2004).

6. Wasserman J, Manning WG, Newhouse JP, Winkler JD. The effects of excise taxes and regulations on cigarette smoking. Journal of Health Economics 1991; 10: 43-64.
7. Jones SE, Sharp DJ, Husten CG, Crossett LS. Cigarette acquisition and proof of age among US high school students who smoke. Tobacco Control 2002; 11: 20-5.
8. Ling PM, Landman A, Glantz SA. It is time to abandon youth access tobacco programmes. Tobacco Control 2002; 11: 3-6.
9. Chaloupka FJ, Hu TW, Warner KE, Jacobs R, Yurekli A. The taxation of tobacco products. In: Jha P, Chaloupka FJ (eds). Tobacco control in developing countries. New York: Oxford University Press, World Bank; 2000: 254.
10. Jha P, Chaloupka FJ. The economics of global tobacco control. British Medical Journal 2000; 321: 358-61.
11. Tauras JA. Public policy and smoking cessation among young adults in the United States. Health Policy 2004; 68: 321-32.
12. Response to increases in cigarette prices by race/ethnicity, income, and age groups. United States, 1976-1993. Mortality and Morbidity Weekly Report 1998; 47: 605.
13. Ross H, Powell LM, Tauras JA, Chaloupka FJ. ImpacTeen Research Papers. New evidence on youth smoking behavior based on experimental price increases. Available from URL: http://www.impacteen.org/ab.htm (accessed on 26 July 2004).
14. Reddy KS, Arora M, Perry CL, Nair B, Kohli A, Lytle LA, et al. Tobacco and alcohol use outcomes of a school-based intervention in New Delhi. American Journal of Health Behavior 2002; 26: 173-81.
15. Winkleby MA, Feighery E, Dunn M, Kole S, Ahn D, Killen JD. Effects of an advocacy intervention to reduce smoking among teenagers. Archives of Paediatrics and Adolescent Medicine 2004; 58: 269-75.
16. Public education reduces tobacco use. Available from URL: http://www.tobaccofreekids.org/research/factsheets/index.php?CategoryID=6(accessed on 15 August 2004).
17. Lovato C, Linn G, Stead LF, Best A. Impact of tobacco advertising and promotion on increasing adolescent smoking behaviors. Cochrane Database Systematic Review 2003;(4): CD003439.
18. Choi WS, Ahluwalia JS, Harris KJ, Okuyemi K. Progression to established smoking: The influence of tobacco marketing. American Journal of Preventive Medicine 2002; 22: 228-33.
19. Wakefield M, Flay B, Nichter M, Giovino G. Effects of anti-smoking advertising on youth smoking: A review. Journal of Health Communication 2003; 8: 229-47.
20. Webster RA, Hunter M, Keats JA. Peer and parental influences on

adolescents. substance use: A path analysis. International Journal of Addictions 1994; 29: 647-57.

21. Fichtenberg CM, Glantz SA. Effect of smoke-free workplaces on smoking behavior: Systematic review. British Medical Journal 2002; 325: 188.

22. Wakefield MA, Chaloupka FJ, Kaufman NJ, Orleans CT, Barker DC, Ruel EE. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: Cross sectional study. British Medical Journal 2000; 321: 333-7.

23. Pentz MA, Dwyer JH, MacKinnon DP, Flay BR, Hansen WB, Wang EY, et al. A multicommunity trial for primary prevention of adolescent drug abuse. Effects on drug use prevalence. Journal of the American Medical Association 1989; 261: 3259-66.

24. Bewley BR, Johnson MRD, Banks MH. Teachers smoking. Journal of Epidemiology and Community Health 1979; 33: 219-22.

25. Sinha DN, Gupta PC, Warren CW, Asma S. Effect of school policy on tobacco use by school personnel in Bihar, India. Journal of School Health 2004; 74: 3-5.