

The hidden crisis: Health impacts of tobacco and nicotine products on Indian women

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ABSTRACT

Tobacco use among women in India is becoming a critical public health issue. Once viewed predominantly as a male habit, tobacco consumption among Indian women has seen a rising trend. This shift is driven by factors such as evolving societal norms, aggressive marketing by the tobacco industry, and increasing urbanization. Women are now using a variety of tobacco products, including smokeless tobacco and electronic nicotine delivery systems (ENDS). The health effects are particularly alarming, with elevated risks for cancers, cardiovascular diseases, respiratory conditions, and reproductive health problems. Despite these concerns, public health initiatives and policies often fail to address the specific needs of women. This editorial examines the social and cultural drivers of tobacco use among Indian women, outlines the severe health risks, and calls for immediate action through gender-sensitive tobacco control policies. It provides recommendations, including robust regulation, community involvement, and specialized cessation programs to reduce the growing tobacco use among women.

Keywords: Health risks, Indian women, nicotine use, tobacco consumption

Background

Tobacco consumption poses a major threat to global public health, causing around 8 million preventable deaths each year—exceeding the combined fatalities from HIV, tuberculosis, and malaria. It includes 1.2 million deaths of innocent bystanders attributed to second-hand smoke exposure.^[1] Nearly 80% of these deaths occur in low- and middle-income countries.^[1] India is the second largest producer and consumer of tobacco products.^[2] In India, tobacco use has traditionally been considered a predominantly male habit. However, the growing prevalence of tobacco and nicotine use among women is becoming a significant public health issue. This editorial examines the

patterns of tobacco and nicotine use among women in India, highlighting the socio-cultural factors influencing this trend, its health consequences, and the challenges it presents. It also offers recommendations to support targeted interventions and policies aimed at reducing tobacco-related harm among women in India.

The Rise of Tobacco and Nicotine Products Use Among Women in India

Historically, tobacco use among Indian women was significantly lower than among men. Cultural norms, societal expectations, and health awareness were key factors in limiting tobacco use among women. However, recent trends show a concerning increase in tobacco consumption among women in both rural and urban areas. According to the Global Adult Tobacco Survey (GATS) 2016–17, approximately 14.2% of Indian women use some form of tobacco, with an unexpectedly higher prevalence in

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Received: 20-10-2024

Accepted: 20-10-2024

Published: 18-11-2024

Access this article online

Quick Response Code:



Website:
<http://journals.lww.com/JFMPC>

DOI:
10.4103/jfmpe.jfmpe_1741_24

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How to cite this article: Goel S, Walia D, Kumar R. The hidden crisis: Health impacts of tobacco and nicotine products on Indian women. *J Family Med Prim Care* 2024;13:4751-4.

rural areas (32.5%) compared to urban areas (21.2%).^[3] Among women, smokeless tobacco products are particularly common, with betel quid with tobacco (4.5%), khaini (4.2%), and oral application products like mishri, gul, and gudakhu (4.3%) being almost equally used.^[3] The smoking prevalence among women is 2.0%.^[3] The use of bidis, traditional hand-rolled cigarettes, is also prevalent, especially in rural regions where they are both affordable and readily available. The prevalence of tobacco use among women shows significant variation across socio-demographic groups.^[4] Tobacco use increases with age: the highest prevalence of SLT and dual use is found among women aged 60 and above.^[4]

In comparison with decline in prevalence of smoking among males from 24.3% to 12.8% between 2009 and 2016,^[5] there has been a consistent increase in female smoking rates from 1.4% to 2.9% between 2005 and 2009.^[5] Recently, electronic nicotine delivery system (ENDS) and other modern nicotine products have become increasingly popular, particularly among young women in urban areas. These products are often marketed as safer alternatives to conventional tobacco, appealing to health-conscious women who still desire the effects of nicotine. The National Family Health Survey-5 (NFHS-5) reports that 4% of women aged 15–49 use tobacco, primarily in the form of chewing paan masala or gutkha, chewing paan with tobacco, and khaini.^[6]

Potential Causes for the Rise in Trend of Tobacco Consumption among Women

The increasing trend of tobacco consumption among women can be linked to various social, cultural, economic, and industry-related factors. Shifting gender roles and evolving societal norms have made smoking more appealing, as it is often associated with empowerment and independence.^[7] Tobacco industry's portrays smoking as a symbol of liberation and gender equality, especially targeting younger women.^[7] Advertisements frequently link smoking to ideals of sophistication, femininity, and fashion, making women more susceptible to these messages.^[7] As a result, women turn to cigarettes or vaping as a way to express empowerment or to manage stress, with societal expectations further reinforcing these patterns.^[7] Women are also drawn to vaping due to its perceived trendiness, though they experience quick fatigue and shortness of breath.^[8] They also face social disapproval and are often stigmatized as “bad” by their communities.^[8] Growing economic independence and urbanization have made tobacco products more accessible and affordable, especially in environments where smoking is normalized. Cultural changes, including the influence of Western lifestyles in developing nations, have also led to greater social acceptance of smoking among women.^[9] Stress plays a major role in driving tobacco use and relapse in females, with anxiety being a primary reason for their continued smoking and difficulty maintaining abstinence.^[10] In today's world, women often face the added pressures of balancing office stress with household responsibilities, further increasing their dependence on tobacco as a coping mechanism. Moreover, women's increasing economic

independence, along with the rise of urbanization, has made tobacco products both more available and affordable. In many urban settings, where smoking is widely accepted and prevalent within certain social groups, tobacco use tends to increase. Additionally, cultural changes, including the adoption of Western habits in developing countries, have fostered a higher level of social acceptance of smoking among women, further fueling its growing popularity.

Health Impacts of Tobacco Use on Women

Tobacco use is deeply embedded in women's lives, influenced by various factors the health, environmental, economic, social, and political impacts of tobacco negatively affect women globally.^[11] Tobacco affects women at all life stages—from birth to childhood, adulthood, pregnancy, motherhood, and menopause.^[11] Research shows that women are more vulnerable to developing tobacco dependence due to their unique physiological and psychological characteristics.^[12] Their bodies are more sensitive to the harmful effects of tobacco, which increases their risk of toxicity and poisoning.^[12] The increasing prevalence of tobacco use among women is particularly alarming, with rates rising rapidly.^[11] Women who use tobacco are at increased risk of developing a range of serious health conditions, including cancer, cardiovascular diseases, respiratory diseases, and reproductive health issues. A study indicates that women who chew tobacco more than 10 times a day are at a significantly greater risk of developing oral cancer compared to those who do not use tobacco.^[13]

It causes neurological symptoms like headaches, dizziness, irritability, and insomnia while reducing overall work capacity.^[14] It increases blood pressure, elevates the risk of coronary heart disease, stroke, and thrombosis, and damages respiratory health by causing chronic inflammation, asthma, and lung cancer.^[14] The digestive system is affected with issues such as bad breath, nausea, heartburn, and difficult-to-treat ulcers due to disrupted gastric secretions. Smoking also interferes with hormone regulation, leading to metabolic imbalances, and causes reproductive problems, including menstrual irregularities, early menopause, and complications in pregnancy such as fetal abnormalities and premature births.^[14] Sensory functions like vision, hearing, and taste are impaired, and it accelerates physical aging by damaging teeth, skin, and hair.^[14] Studies also suggest that women may be at greater risk of developing severe chronic obstructive pulmonary disease (COPD) at a younger age than men.^[15]

Subsequent studies revealed that smoking before and during pregnancy reduces fertility, increases complications, and endangers the health of both mother and baby.^[15] Smoking is also linked to ectopic pregnancies, where the fertilized egg implants outside the uterus, often resulting in the loss of the embryo and posing serious health risks to the mother.^[15]

The rise in tobacco use among women is closely linked to the targeted marketing strategies of tobacco companies. Tobacco

companies have developed brands specifically for women, with packaging and names designed to appeal to them representing a significant growth area for the industry.^[16] Addressing tobacco use among women in India presents several challenges, including deep-rooted cultural acceptance of tobacco in certain communities and a lack of gender-specific tobacco control policies. Most initiatives focus on men and overlook the unique factors influencing women's tobacco use. Moreover, there is insufficient awareness about the specific health risks for women, and the tobacco industry's adaptive marketing strategies further complicate effective tobacco control efforts.

Recommendations

To effectively address tobacco, use among women in India, a multifaceted approach is required. The following recommendations are crucial for developing effective tobacco control strategies:

Firstly, there is an urgent need for gender-specific tobacco control policies that specifically address the unique factors influencing tobacco use among women. Public health campaigns should prioritize raising awareness about the specific health risks women face due to tobacco use and work to dispel common myths and misconceptions. These campaigns should also address the myths and misconceptions surrounding tobacco use among women like hookah use, beedi consumption, smoking consumption helps in weight loss and promote evidence-based information.

Secondly, it is crucial to strengthen the regulation of tobacco and nicotine products, particularly smokeless tobacco and ENDS, as they are being targeted toward fair gender. This involves closing regulatory loopholes, enforcing existing laws, and implementing stricter marketing restrictions to prevent these products from targeting women and young people.

Thirdly, engaging communities, especially in rural areas, is vital for changing cultural norms around tobacco consumption like hookah use, beedi use among women. Community-based interventions involving local leaders, women's groups, and healthcare providers can help shift perceptions and reduce the cultural acceptance of practices such as hookah smoking and other forms of tobacco use. Fourthly, the government should provide accessible and affordable cessation support tailored to women's need, including gender-sensitive counseling, support groups, and appropriate aids within healthcare systems.

Lastly, there is a need to conduct more studies on women's tobacco use in India to understand trends and develop effective interventions, gather gender-specific data on usage patterns, measuring health impacts, and policy effectiveness.

Conclusion

The rising use of tobacco and nicotine among women in India is a significant public health concern that requires immediate attention. Addressing this issue will require a comprehensive

approach that includes gender-specific policies, tailored education and awareness campaigns, strengthened regulations, community engagement, and targeted cessation support. By taking these steps, India can reduce the burden of tobacco-related diseases among women and protect future generations from the harmful effects of tobacco and nicotine.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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