Review article

The Effectiveness of Tobacco Control Interventions: A Literature Review and Comparative Analysis of India and the United Kingdom

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Abstract

This study conducted a descriptive comparison between India (a developing country) and the United Kingdom (a developed country) to critically assess the efficacy of current tobacco control initiatives that may help lower smoking prevalence. This review found that the most effective tobacco control interventions are tobacco taxation and pricing, and the ban on smoking at workplaces and public places. However, these measures should be combined with other important interventions, such as brief interventions, banning tobacco advertising, regulating tobacco labelling and packaging, and raising awareness of the health hazards of tobacco, to bring about a substantial effect. According to this review, it appears that the UK has a superior status to India in the implementation of tobacco control programs.

Keywords. Effectiveness, Tobacco Control Interventions, Literature Review, United Kingdom, India.

Introduction

One of the biggest preventable causes of death worldwide is tobacco use, which also contributes to several illnesses like lung cancer and cardiovascular disease [1]. Even with the development of various interventions in wealthy nations such as the UK, Smoking continues to be a major public health concern. The risk of smoking, on the other hand, is significantly higher in developing countries [2]. India is one of the developing nations with the highest smoking rates, with an estimated 275 million smokers in 2009-2010. Smoking causes around one million fatalities annually in India [3], compared to approximately 996,000 smoking-related deaths in the UK [4]. This discrepancy implies that the tobacco control policies implemented in these various nations may be insufficient or vary greatly.

The purpose of this literature review is to compare the effectiveness of current tobacco control measures in two different contexts- India and the United Kingdom, which have made these issues a top priority in their health policies, and critically assess their efficacy. The comparison attempts to give developing country officials a strong justification for enacting more stringent and all-encompassing regulations in the future.

Tobacco control interventions

The World Health Organization recommended that tobacco control strategies should be comprehensive to have a strong effect on smoking prevalence and such plans should involve six important evidence-based measures (MPOWER): Monitoring tobacco use and prevention policies, protect people from tobacco smoke, offer help to quit tobacco use, warn about the dangers of tobacco, enforce bans on tobacco advertising, promotion and sponsorship, raise taxes on tobacco [5].

Ban smoking at work and in public places

According to reports, workplace smoking prevention initiatives combined with environmental support seem to be successful in helping people quit smoking. Furthermore, a meta-analysis by Fisher et al [6] and a systematic review by Moher et al. [7] have shown that workplace interventions are the most successful in helping people stop smoking since they have been widely shown to be successful. Furthermore, nations like Norway, Italy, New Zealand, and the Republic of Ireland, which have national smoke-free laws, have reported a decrease in cigarette sales [8].

Table 1 shows the difference between the UK and India regarding the ban on smoking at work and in public places. In England, smoke-free legislation was introduced on 1 July 2007 following recommendations from the European Council on smoke-free environments, where it stated that smoking is prohibited and illegal in all work and public places, including public transport and work vehicles [9]. While in India, the Ministry of Health and Family Welfare established the law of prohibition of smoking in public places and workplaces in India in 2008 [10,11]. However, it is still permitted to smoke in specific areas and places, for instance: hotels that have 30 rooms or more, in restaurants that have 30 seats or more, and airports [12].

Tobacco advertising, promotion, and sponsorship

According to a 2012 analysis by the US Department of Health and Human Services, tobacco corporations' advertising and promotional efforts are causally linked to the initiation and development of teenage tobacco use [13]. However, this causal association was not deduced from randomized controlled trials; rather, it was supported by three types of data: Longitudinal studies, correlational evidence, and evidence

relating to the causal mechanism [14]. According to two studies on adolescents conducted in Brazil and Hong Kong, banning advertisements may help lower the prevalence of smoking [15,16]. However, the lack of a control group and the lengthy interval between baselines and follow-up hampered the findings of both interventions [17].

Table 1. Differences between the UK and India regarding smoking ban at work and public plac	Table 1. D	Differences betw	een the UK o	and India re	egarding	smoking	ban at	t work and	l public _l	olaces
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Smoke-free environments - complete smoking ban	Uk	India
Health-care facilities	Yes	Yes
Primary and secondary schools	Yes	Yes
Universities	No	Yes
Governmental facilities	Yes	Yes
Private offices	Yes	Yes
Public transport	Yes	Yes
Restaurants	Yes	No
Bars and pubs	Yes	No
Prisons	Yes	Yes
Hotels	Yes	No

Table 2 shows the difference in how tobacco advertising, promotion, and sponsorship are applied in the UK and India. According to tobacco control laws [10], the United Kingdom bans tobacco advertising and promotion in general, except retail incentive programs and direct person-to-person contact, as well as specialised tobacco products other than cigarettes. In India, advertising through various media is prohibited, but tobacco companies still advertise at the tobacco point of sale, subject to certain restrictions, and there are also limitations on tobacco sponsorship and the publicity of such sponsorship (1:0)

Table 2. Summary of the differences in how Tobacco advertising, promotion, and sponsorship are applied in the UK & India

Bans on tobacco advertising, promotion, and sponsorship	UK	India
Domestic TV and radio	Yes	Yes
Domestic magazines and newspapers	Yes	Yes
Outdoor advertising	Yes	Yes
Point-of-sale advertising is not paid	No	No
Retail product display	No	No
Internet advertising	No	Yes
Free distribution	Yes	Yes
Promotional discounts	Yes	Yes

Raise awareness of the health risks associated with tobacco use

Research has demonstrated that educating consumers is an effective strategy for managing tobacco consumption [5]. Campaigns utilizing mass media have the potential to inform and alter public perceptions regarding the dangers of smoking and the benefits of cessation [18]. Health warnings on smoked tobacco products serve to educate individuals regarding the dangers associated with tobacco use [5]. Reports indicate that the introduction of new warning labels on cigarette packages in Canada successfully influenced smokers' behavior, with approximately 43% of smokers expressing increased concern about the health implications of tobacco consumption, and 44% indicating a desire to quit [19]. Nonetheless, a research investigation conducted in the United States focusing on adolescents has indicated that cautionary labels affixed to cigarette packaging lack informative value [20]. Furthermore, it has been suggested that these warning labels ought to be displayed on the most substantial areas (both the front and back) of the packaging and should be highly conspicuous in relation to the overall design of the product [21].

Table 3 shows the differences between the UK and India regarding how health warnings on smoked tobacco products are applied. Since 2007, in the United Kingdom, regulatory measures have mandated the inclusion of pictorial health warnings that occupy 65% of the surface area on both the front and back of tobacco packaging. These warnings comprise textual information, photographic depictions, and guidance on cessation of smoking, in addition to a total of 14 distinct warnings that may be concurrently displayed [22]. In India, the act on tobacco packaging and labelling was amended in 2015, and these new amendments included increasing the size of the pictorial health warnings to 80% of the principal area on the front of the packet [23]. Nevertheless, the intervention of the tobacco industry through legal actions,

misguided media coverage, political pressures, lobbying efforts, insufficient political commitment, and a lack of backing from governmental bodies has resulted in the weakening and postponement of the enforcement of pictorial warnings on tobacco products in India [24].

Table 3. Summary of the difference in how health warnings on smoked tobacco products are applied in the UK & India

Health warnings on smoked tobacco products	UK	India
% Of principal display areas covered (front and back)	65%	80%
Front	65%	80%
Back	65%	0
Number of published warnings at any given time	14	1

Taxation and the increasing price of tobacco

Implementing taxes and raising the cost of tobacco products are regarded as some of the most successful broad-based strategies for decreasing smoking rates. Research has shown that a 10% price rise causes tobacco usage to drop by about 4% in high-income countries and 8% in middle- and low-income countries. Price hikes are especially effective at discouraging youngsters and those from lower socioeconomic backgrounds from smoking.

The cost of tobacco items is controlled by UK and EU regulations, as every tobacco item sold in the UK must display a 'UK Duty Paid' label to distinguish genuine products from smuggled ones [25]. Additionally, as stated in the white paper released in 1998, the British government declared a tax hike of no less than 5%, yet in 2013, the actual tax rate decreased to 2% [26]. However, in the UK, a 30% price increase in 2009 is estimated to have led to a decrease in male smoking prevalence [27].

Although the Indian government initiated various tax policy measures on tobacco products, such measures were still considered insufficient to make tobacco products less affordable, and, according to secondary data gathered by Indian governmental and non-governmental organizations, the prices of tobacco products are lower than the prices of food items, so the affordability of tobacco products has increased from 2006-2011 [28]. (Table 4) shows the difference between the UK and India regarding taxation and price levels.

Table 4: Summary of the difference in how tobacco taxation and price laws are applied in the UK & India.

Tobacco taxation and price law	UK	India
Price of the most sold brand, pack of 20 cigarettes (in us dollars)	12.69	1.76
Taxes on most sold brands (% of retail price), total taxes	82%	60%

Brief interventions

One of the six tobacco control techniques WHO recommends under MPOWER is offering to assist people in quitting smoking through a brief intervention [5]. Pharmacotherapy, quit lines, and technology-based therapies are just a few of the various ways that brief interventions can be implemented [29]. Opportunities for guidance, negotiation, or motivation, support, and referral to more intense therapies are all included in brief interventions [30].

In 1998, the British government launched a comprehensive tobacco control plan that resulted in the creation of NHS Stop Smoking Services, the world's first state-wide smoking cessation treatment program. Brief interventions have been shown to reduce the prevalence of male smoking in the UK by 21% [27]. In India, about 13tobacco cessation clinics (TCCs) were established in 2002 by the Ministry of Health and Family Welfare with assistance from the World Health Organization's India country office; this number subsequently rose to 19. However, the number of people, especially those living in rural areas, who reach smoking cessation clinics is limited [3]. The differences between the UK and India in regard to the application of pharmacotherapy and brief interventions are shown in (Table 5).

Table 5: Summary for differences in application of pharmacotherapy and brief interventions between UK & India.

Smoking cessation interventions	India	Uk
Pharmacotherapy and brief interventions	Inaccessible	Accessible
Quit lines	Limited	Available

Conclusion and recommendations

This literature review demonstrates that the most effective population-level strategies for lowering the prevalence of smoking are legislative (public place prohibitions) and fiscal (taxation and price) initiatives.

To create a significant, long-term impact, these foundational measures must be used in tandem with clinical short interventions and public awareness efforts. It is evident from the observed difference between the UK and India that smoking is still much more common in developing nations. India has enacted several laws, but it is still very difficult to ensure that they are applied consistently across the country. For India and other developing nations: To stop users from switching to less expensive options after price hikes, a consistent and all-encompassing tax structure must be put in place for all tobacco products, including smoked and smokeless tobacco.

Conflict of interest

No conflicts of interest need to be disclosed.

References

- 1. Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years' observations on male British doctors. BMJ. 2004 Jun 26;328(7455):1519.
- 2. Fagerström K. The epidemiology of smoking: health consequences and benefits of cessation. Drugs. 2002;62 Suppl 2:1-9.
- 3. Thankappan KR. Tobacco cessation in India: a priority health intervention. Indian J Med Res. 2014 Apr;139(4):484-6.
- 4. Action on Smoking and Health. Smoking and disease. London: Action on Smoking and Health; 2016.
- 5. World Health Organization. WHO report on the global tobacco epidemic, 2013: enforcing bans on tobacco advertising, promotion and sponsorship. Geneva: World Health Organization; 2013.
- 6. Fisher KJ, Glasgow RE, Terborg JR. Worksite smoking cessation: a meta-analysis of long-term quit rates from controlled studies. J Occup Med. 1990 May;32(5):429-39.
- 7. Moher M, Hey K, Lancaster T. Workplace interventions for smoking cessation. Cochrane Database Syst Rev. 2005 Apr 18;(2):CD003440.
- 8. Thomson G, Wilson N. One year of smokefree bars and restaurants in New Zealand: impacts and responses. BMC Public Health. 2006 Mar 16;6:64.
- 9. Bauld L. The impact of smokefree legislation in England: evidence review. Bath: University of Bath; 2011.
- 10. Campaign for Tobacco-Free Kids. Tobacco control laws: legislation. Washington: Campaign for Tobacco-Free Kids; 2017.
- 11. Bhaumik S. Bollywood delivers 14.3 billion tobacco images to Indian audiences each year. BMJ. 2013 Apr 30;346:f2608.
- 12. Campaign for Tobacco-Free Kids. Tobacco control laws: analysis of legislation and litigation from around the world. Washington: Campaign for Tobacco-Free Kids; 2015.
- 13. U.S. Department of Health and Human Services. Preventing tobacco use among youth and young adults: a report of the Surgeon General. Atlanta (GA): 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; 2012.
- 14. Biener L, Siegel M. The role of tobacco advertising and promotion in smoking initiation. In: Burns DM, editor. Changing adolescent smoking prevalence. Smoking and tobacco control monograph no. 14. Bethesda (MD): U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2001. p. 201-12. (NIH Publication No. 02-5086).
- 15. Galduróz JC, Fonseca AM, Noto AR, Carlini EA. Decrease in tobacco use among Brazilian students: a possible consequence of the ban on cigarette advertising? Addict Behav. 2007 Jun;32(6):1309-13.
- 16. Fielding R, Chee YY, Choi KM, Chu TK, Kato K, Lam SK, et al. Declines in tobacco brand recognition and ever-smoking rates among young children following restrictions on tobacco advertisements in Hong Kong. J Public Health (Oxf). 2004 Mar;26(1):24-30.
- 17. Wilson LM, Avila Tang E, Chander G, Hutton HE, Odelola OA, Elf JL, et al. Impact of tobacco control interventions on smoking initiation, cessation, and prevalence: a systematic review. J Environ Public Health. 2012;2012:961724.
- 18. Flay BR. Mass media and smoking cessation: a critical review. Am J Public Health. 1987 Feb;77(2):153-60.
- 19. Mackay J, Eriksen M. The tobacco atlas. Geneva: World Health Organization; 2002.
- 20. Crawford MA, Balch GI, Mermelstein R; Tobacco Control Network Writing Group. Responses to tobacco control policies among youth. Tob Control. 2002 Mar;11(1):14-9.
- 21. Strahan EJ, Fabrigar LR, Fong GT, Zanna MP, Cameron R. Enhancing the effectiveness of message labels on tobacco packaging: a social psychological perspective. Tob Control. 2002 Sep;11(3):183-90.
- 22. Tobacco Labelling Resource Centre. Plain packaging regulations. Waterloo (ON): Tobacco Labelling Resource Centre; 2013.
- 23. Chung-Hall J, Craig L, Gravely S, Sansone N, Fong GT. Impact of the WHO FCTC on the implementation and effectiveness of tobacco control measures: a global evidence review. Waterloo (ON): University of Waterloo; 2016.
- 24. Reddy KS, Arora M. Pictorial health warnings are a must for effective tobacco control. Indian J Med Res. 2009 May;129(5):468-71.
- 25. Action on Smoking and Health. Illicit trade in tobacco. London: Action on Smoking and Health; 2017.
- 26. Action on Smoking and Health. UK tobacco control policy and expenditure: an overview. London: Action on Smoking and Health; 2016.
- 27. Levy DT, Currie L, Clancy L. Tobacco control policy in the UK: blueprint for the rest of Europe? Eur J Public Health. 2013 Apr;23(2):201-6.

https://doi.org/10.54361/ajmas.258476

- 28. Ministry of Health and Family Welfare, Government of India. Tobacco taxes in India: an empirical analysis. New Delhi: Ministry of Health and Family Welfare, Government of India; 2014.
- 29. Zhu SH, Gardiner P, Cummins S, Anderson C, Wong S, Cowling DW, et al. Quitline utilization rates of African-American and white smokers: the California experience. Am J Health Promot. 2011 Jan-Feb;25(3 Suppl):S51-8.
- 30. National Institute for Health and Care Excellence (NICE). Tobacco: preventing uptake, promoting quitting and treating dependence. London: National Institute for Health and Care Excellence (UK); 2021.