

Tobacco imagery in Bollywood films: 2006–2008

Gaurang P Nazar,¹ Vinay K Gupta,² Christopher Millett,^{3,4} Monika Arora^{1,2}

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¹Health Related Information Dissemination Amongst Youth (HRIDAY), New Delhi, India

²Public Health Foundation of India (PHFI), New Delhi, India

³School of Public Health, Imperial College London, London, UK

⁴South Asia Network for Chronic Disease, Public Health Foundation of India (PHFI), New Delhi, India

Correspondence to

Dr Gaurang P Nazar, Health Related Information Dissemination Amongst Youth (HRIDAY), 4/2, Sirifort Institutional Area, 2nd floor, PHD Chamber, New Delhi, 110016, India; gaurang@hriday-shan.org

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ABSTRACT

Objective To estimate exposure to tobacco imagery in youth-rated Bollywood films, and examine the results in light of recent developments in India's film rating system.

Methods Content coding of 44 top grossing Bollywood films (including 38 youth-rated films) released during 2006–2008 was undertaken to estimate tobacco occurrences and impressions.

Results Out of the 38 youth-rated (U and U/A) films coded, 50% contained tobacco imagery. Mean tobacco occurrences were 1.9, 2.9 and 13.7 per U, U/A and adult (A) rated films, respectively. Top grossing youth-rated films delivered 1.91 billion tobacco impressions to Indian cinema audiences.

Conclusions Half the youth-rated Bollywood films contain tobacco imagery resulting in large population level exposure in India, relative to other countries. Measures to reduce youth exposure to tobacco imagery through films, such as restricting access through the rating system, will complement other tobacco control measures.

INTRODUCTION

International studies indicate a causal association between exposure to tobacco imagery in films and smoking initiation among youth.¹ A recent Indian study found that adolescents highly exposed to tobacco occurrences in Bollywood films are at more than twice the risk of being ever tobacco users compared with those with low exposure.² Constrained by the tobacco control laws which prohibit advertising and promotion of tobacco products,³ the tobacco industry has successfully used films as a means to promote their products, especially with children, adolescents and women.¹

In response to this evidence, WHO recommends that new films with tobacco imagery receive an adult (18) rating.¹ In India, amendment of rules under Section 5 of Cigarettes and Other Tobacco Products Act (COTPA) in the year 2006 permitted the display of tobacco products in films with requirement of strong editorial justification and an 'Adult (A) rating' for such films.⁴ However, these rules were opposed by Indian film fraternity in the High Court of Delhi and they were not implemented.⁵ The notification of October 2011 requires films which depict tobacco imagery to be 'U/A' (youth) rated.⁶ A recent amendment in September 2012 has removed the requirement of 'U/A' rating for films depicting tobacco imagery, but mandates requirement of strong editorial justification for such depiction, audiovisual disclaimer, antitobacco health spots, a static warning message at the bottom of the screen during the period of display of tobacco imagery, blurring of tobacco products or packs on close-ups, and no tobacco brand placement.⁷ This means that children and adolescents will continue to be

exposed to tobacco use through youth-rated Bollywood films depicting tobacco imagery.

Analysis of Hollywood films released in the UK and USA indicate the presence of extensive tobacco imagery in youth-rated films.^{8–9} Tobacco imagery is not well documented in Bollywood films. This is an important knowledge gap given that production and global popularity of Bollywood films is higher than Hollywood films.^{2–10} This paper estimates exposure to tobacco imagery through youth-rated Bollywood films in India screened between the years 2006 and 2008, and examines the results in light of recent developments in India's film rating system.

METHODS

Fifteen Bollywood films per year with the highest box-office takings released between 2006 and 2008 were identified. The DVD for one film released in 2008 could not be procured. This was excluded, leaving 44 films in the study. 'Tobacco occurrences' were counted using an established method of content analysis of films developed by Dartmouth Medical School (USA) and adapted to suit the Bollywood films.¹¹ An occurrence was defined as the appearance of a tobacco product on screen (cigarettes, beedi, smokeless tobacco, cigar, pipe, smoky background, and an appearance of a tobacco product with ownership by a particular character). In a given scene, the number of occurrences were capped at 10 and dictated by the number of characters within the scene who used or handled a tobacco product. The number of 'tobacco impressions' delivered by a film is a measure of its impact promoting youth tobacco use. One impression was defined as one person seeing one tobacco occurrence one time.⁸ To calculate impressions, average ticket price for the study period (2006–2008) was obtained from market research conducted by a public private partnership investment and asset management firm in India, the infrastructure development finance company limited.¹² Box-office collection (obtained from <http://www.bollywoodtrade.com>) of a film was divided by the average price of a ticket to get an estimated number of in-theatre views of that film. The number of views was multiplied by tobacco occurrences in each film to estimate the tobacco impressions delivered by that film. These were added for all 44 films (see online supplementary file). The central board of film certification uses the following rating system for Bollywood films in India: U-unrestricted public exhibition; U/A-unrestricted public exhibition but with a word of caution that parental discretion may be required for children below 12 years; A-restricted to adults, 18 years and above.¹³ Tobacco occurrences and impressions were also estimated by film rating.

To estimate total tobacco impressions from all the Bollywood films screened during 2006–2008, the total box-office collection from all the films

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screened during 2006–2008 was divided by the box-office collection from the 44 films included in this study, and this figure was multiplied by overall impressions delivered by these 44 films.

RESULTS

Twenty-four out of the 44 films (55%) included in the analyses contained tobacco occurrences. These films contained a total of 179 tobacco occurrences, and they delivered overall 2.85 billion tobacco impressions to the Indian audiences who saw these films in cinema halls (table 1).

Eighty-three per cent of adult (A)-rated films, and 50% of youth-rated (U/A and U) films contained tobacco occurrences (table 1). Adult-rated films depicted a higher average number of tobacco occurrences (13.7 occurrences/film) than youth-rated films (U/A: 2.9 occurrences/film, U: 1.9 occurrences/film). Adult-rated films also delivered higher number of tobacco impressions (0.16 billion/film) as compared with U/A (0.06 billion/film) or U (0.02 billion/film) rated films. Collectively, the 38 youth-rated films studied delivered about 1.91 billion tobacco impressions to the Indian cinema hall audience. Total box-office collection from all the Bollywood films screened during the years 2006–2008 was determined to be about US \$6.15 billion.^{14–16} Based on this, we estimated that total impressions for all films released during the years 2006–2008 were 43 billion (14.3 billion annually).

DISCUSSION

Across the globe, content analysis of films has consistently revealed that around 60% films contain tobacco imagery.^{8 17} Likewise, our study demonstrated that 55% of top grossing Bollywood films contain tobacco imagery. Our findings suggest that the average number of tobacco occurrences is lower in Bollywood films (4.1 vs 6.7 occurrences) than in Hollywood films.⁸ However, on average, the Bollywood films studied delivered seven times more (70 million vs 9.5 million) tobacco impressions than Hollywood films screened in the UK from 2001 to 2006.⁸ We estimate that Bollywood films deliver approximately 14 billion tobacco impressions to Indian audiences annually compared with about 920 million impressions delivered by Hollywood films screened in UK.⁸ This dissimilarity largely reflects differences in population size and cinema attendance patterns between the two countries.

A study conducted in the USA suggested that exposure to smoking and delivery of tobacco impressions was higher in youth-rated (G/PG and PG13) as compared with adult (R) rated films.⁹ By contrast, adult-rated films in our study contained

more tobacco occurrences, and delivered greater tobacco impressions, as compared with youth-rated films. However, about half the youth-rated Bollywood films depicting tobacco occurrences is a cause for concern. Adult-rated films are least watched, whereas, youth-rated films are most watched by children and adolescents as experienced from studies conducted in the developed countries,¹ and this is also likely to be true in the Indian context. This has important policy implications in terms of the film rating system that currently exists in India. In light of evidence from our study, certifying Bollywood films containing tobacco imagery as 'Adult (A) rated' would shift the excess delivery of tobacco impressions from U and U/A to A rated films, which in turn will be least watched by children and youth.

The ubiquitous presence of tobacco imagery in Bollywood films suggests that the tobacco industry may be using cinema to aggressively promote their products to Indian youth. Despite imposing stringent regulations related to tobacco imagery in Bollywood films, the notification of September 2012 allows youth (U and U/A) rating for such films.⁷ This represents non-compliance with the guidelines for implementation of Article 13 of WHO Framework Convention on Tobacco Control.¹⁸ The Indian Government has successfully implemented landmark tobacco-free film rules, after seven long years of legal battle and interministerial negotiation. However, by not implementing their original policy of requiring films with tobacco imagery receiving 'adult rating' contrary to WHO recommendations,¹ an important opportunity for effective prevention and control of tobacco use among youth is being missed. Eliminating the depiction of tobacco imagery in youth-rated Bollywood films would complement other tobacco control measures known to reduce tobacco use among the youth, including increasing the age of purchase, increasing taxation of tobacco products, smoke-free policies, comprehensive bans on tobacco advertisements, mass-media campaigns and school-based and community-based programmes.¹⁹

LIMITATIONS

Estimations of exposure to tobacco imagery in Bollywood films in this study are based only on viewings in cinema halls and do not capture viewings through DVD, television and the internet. This may not be a major shortcoming, as cinema hall box-office collections represent over 80% of the total film revenue in India compared with only 25% in the USA.²⁰ As international box-office collections were available only for few films, we were unable to estimate the magnitude of exposure to tobacco imagery through Bollywood films globally.

CONCLUSION

Half the youth-rated Bollywood films contain tobacco imagery resulting in high population-level exposure in India relative to other countries. Measures to reduce exposure of youth to tobacco imagery through films will complement other tobacco control measures. Measures may include reviewing the film rating system to restrict youth access to films where tobacco imagery is prevalent.

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Contributors GPN contributed to acquisition of data, planning and interpreting the data analysis, drafting the manuscript and revising it critically for intellectual content, VKG contributed to data analysis and writing sections in results section. CM and MA contributed to the concept and design, revising the manuscript critically for intellectual content and final approval.

Table 1 Level of exposure to onscreen tobacco use in Bollywood films (2006–2008)

	Film rating			Total
	U	U/A	A	
Number of films	13	25	6	44
Films with tobacco imagery	7	12	5	24
Total tobacco occurrences	24	73	82	179
Mean tobacco occurrences per film	1.85	2.92	13.66	4.07
Total tobacco impressions	0.29 billion	1.62 billion	0.94 billion	2.85 billion
Mean tobacco impressions per film	0.02 billion	0.06 billion	0.16 billion	0.07 billion

Original research

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REFERENCES

- World Health Organization. *Smoke-free movies: from evidence to action*. 2nd edn. Geneva: World Health Organization, 2011.
- Arora M, Mathur N, Gupta VK, et al. Tobacco use in Bollywood movies, tobacco promotional activities and their association with tobacco use among Indian adolescents. *Tob Control* 2012;21:482–7.
- Ministry of Health and Family Welfare. Guidelines for Law enforcers for effective implementation of tobacco control laws. http://whoindia.org/LinkFiles/Tobacco_Free_Initiative_Tobacco_Free_Initiative_Guidelines_for_Law_Enforcers_for_effective_implementation_of_tobacco_control_laws.pdf (accessed 25 June 2012).
- Ministry of Health and Family Welfare. *The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 and related rules and regulations*. New Delhi: Government of India Press, 2009.
- World Health Organization. *Smoke-free movies: from evidence to action*. Geneva: World Health Organization, 2009.
- Ministry of Health and Family Welfare, Government of India. Notification 27th October 2011 GSR 786 (E). http://www.taxindiaonline.com/RC2/pdfdocs/wnew/Notification_Tobacco.pdf (accessed 11 July 2012).
- Ministry of Health and Family Welfare, Government of India. *The Gazette of India: extraordinary. notification 21st September 2012 GSR 708(E)*. New Delhi: Government of India Press, 2012.
- Anderson SJ, Millett C, Polansky JR, et al. Exposure to smoking in movies among British adolescents 2001–2006. *Tob Control* 2010;19:197–200.
- Charlesworth A, Glantz SA. Tobacco and the movie industry. *Clin Occup Environ Med* 2006;5:73–84.
- European Audiovisual Observatory. *Focus 2010-World Film Market Trends*. Paris: Global Rouge, 2010.
- Sargent JD, Beach ML, Dalton MA, et al. Effect of seeing tobacco use in films on trying smoking among adolescents: cross sectional study. *BMJ* 2001;323:1394–7.
- Infrastructure Development Finance Company Ltd. India Entertainment & Media. http://www.idfc.com/pdf/IEM_Presentation.pdf (accessed 26 June 2012).
- Central Board of Film Certification. *About CBFC*. <http://cbfcindia.gov.in/> (accessed 12 July 2012).
- Mutiny Wordpress. Bollywood vs. Hollywood—The Complete Breakdown. <http://mutiny.wordpress.com/2007/02/01/bollywood-vs-hollywood-the-complete-breakdown/> (accessed 12 July 2012).
- The Viewspaper. Brand Bollywood. <http://theviewspaper.net/brand-bollywood/> (accessed 28 June 2012).
- Time. The Bollywood Strike Hits Festival Season. <http://www.time.com/time/world/article/0,8599,1846497,00.html> (accessed 27 June 2012).
- Titus K, Glantz S, Polansky JR. *Smoking presentation trends in U.S. Movies 1991–2008*. San Francisco, California: Breathe California of Sacramento-Emigrant Trails and the Center for Tobacco Control Research and Education, University of California, 2009.
- World Health Organization. Guidelines for implementation of Article 13 of the WHO Framework Convention on Tobacco Control (Tobacco advertising, promotion and sponsorship). http://www.who.int/fctc/guidelines/article_13.pdf (accessed 12 July 2012).
- US 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.
- Kellogg School of Management. Hurray for Bollywood: How Indian Film Producers and Distributors Can Improve U.S. Returns. http://www.kellogg.northwestern.edu/Departments/International/InternationalFocus/article/2007_Hurray_for_Bollywood.aspx (accessed 28 June 2012).



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