Women and the smoking epidemic: turning the tide

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In this issue of the *Bulletin of the World Health Organization*, a paper by Hitchman & Fong shows a strong association between the ratio of female and male smoking rates, and gender empowerment in many countries. The association is clearly linked to the level of economic development, which is measured by income per capita and income inequality. In concluding, the authors pose a stark question: will the trend towards greater gender empowerment inevitably lead to a smoking epidemic among women?

The findings of the paper conform with the predictions of a model of the cigarette epidemic in developed countries that was proposed by Lopez et al. based on the historical experience of several countries.² The model describes a pattern of rapidly rising smoking prevalence that peaks after a few decades and then declines. Smoking-related mortality peaks three to four decades after the peak in smoking prevalence. Historically, female smoking has lagged male smoking, often by a few decades. Thus the adverse health effects of smoking in a population start becoming evident around the time that the female smoking adoption rate starts rising. This is considered to moderate the rise in female smoking prevalence, which has been observed to peak at about 35-40%, in contrast to peak male smoking prevalence of 50-80%.

Most of the literature on gender differences in smoking has focused on differences in traditional sex roles. These roles have translated historically into social norms, such as disapproval of female smoking, and gender-specific personal characteristics, such as greater rebelliousness among men, which is linked to higher smoking rates.³

However, countries can vary widely in their actual experience with the smoking epidemic. It is well known that female smoking prevalence has been low in China even though male smoking prevalence has been high for several decades. The reason for the difference is generally attributed to strong and persistent social norms against female smoking. What is perhaps less well known is that in China female smoking rates have actually declined through most of the 20th century. The smoking prevalence among Chinese women born in 1908–1912 was as high as 25% but it declined sharply in successive female cohorts. In contrast,

male smoking prevalence in the 1908–1912 birth cohorts was 70% and the prevalence remained high in later male cohorts.⁴

Widespread female smoking adoption in China in the 1930s is at least in part linked to the mass availability of cigarettes at cheap prices and aggressive advertising using female models that depicted the modern Chinese woman taking her place in a rapidly changing world. The subsequent reversal in female smoking prevalence appears, in part, to be caused by cultural and socioeconomic forces that turned back the tide of mass marketing. For instance, Madame Chiang Kai-Shek's New Life Movement emphasized traditional Confucian values and frowned on unhealthy behaviours such as smoking. §

This pattern is not unique to China; data from Japan and the Republic of Korea also suggest that there was a decline in smoking prevalence in successive female birth cohorts over the course of much of the 20th century.⁴ This is a striking departure from the model described by Lopez et al. and merits further research. The key message is that, while that model does furnish a useful benchmark for projections, a sustained rise in female smoking prevalence is not necessarily inevitable.

The social norms that slowed the diffusion of smoking among women are clearly diminishing in most parts of the developing world. This is one of the unwelcome consequences of the otherwise very welcome processes of gender empowerment and economic growth which allow women to freely make choices and furnish them with the economic resources to pursue those choices. An ominous clue is found in the narrowing gender gap in the rates of smoking experimentation and adoption among teenagers around the world.5 The World Health Organization is concerned enough that it made gender and tobacco the theme of the 2010 World No Tobacco Day.

For effective policy-making, we need a finer understanding of the gender differences in smoking adoption, intensity and cessation. Even in a country such as Germany with a high degree of female empowerment, gender differences in observable socioeconomic characteristics such as education, employment and income appear to explain only a small fraction of the gender difference in smoking prevalence and intensity.⁶

More research is merited on how women view triggers that could lead to smoking adoption, such as peer pressure and role models, how addiction develops in female smokers, and how they weigh the costs and benefits of smoking. Ironically, it may be cigarette marketers who currently have the best understanding of what induces women to experiment with and eventually adopt smoking! The marketers tailor their messages to target specific demographic and socioeconomic groups. Effective social marketing by public health advocates requires a similar sophisticated and customized response that should be grounded in the local cultural context. This is important, not only because of differing social norms, but also because tobacco is consumed in many different forms across the world. Reassuringly, there is increasing evidence that mass-media campaigns can be effective in inducing desired behavioural changes.⁷ The social marketing response should go hand-in-hand with other policy instruments such as taxes, curbs on advertising and restrictions on availability of tobacco products.

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