Commentary

One Size Does Not Fit All When it Comes to Smoking Cessation: Observations from the International Tobacco Control Policy Evaluation Project

Ron Borland, Ph.D.,¹ Andrew Hyland, Ph.D.,² K. Michael Cummings, M.P.H., Ph.D,² & Geoffrey T. Fong, Ph.D.^{3,4}

¹ The Cancer Council Victoria, Melbourne, Australia

² Department of Health Behavior, Roswell Park Cancer Institute, Buffalo, NY, USA

³ Department of Psychology, University of Waterloo, Waterloo, Ontario, Canada

⁴ Ontario Institute for Cancer Research, Toronto, Ontario, Canada

Corresponding Author: Andrew Hyland, Ph.D., Department of Health Behavior, Roswell Park Cancer Institute, Buffalo, NY 14263, USA E-mail: andrew.hyland@roswellpark.org

Received July 26, 2010; accepted July 26, 2010

The global community, through the World Health Organization's Framework Convention on Tobacco Control (FCTC), is seeking to develop Guidelines for the implementation of Article 14 of the Convention, which deals with support for smoking cessation. This development requires models of how best to develop infrastructure and measures to promote and support cessation around the world. This special issue of Nicotine & Tobacco Research provides some evidence from the International Tobacco Control (ITC) Policy Evaluation Project that is contributing to an increased understanding of the challenges associated with encouraging and supporting smoking cessation. The ITC project (of which we are all leaders) is a research collaborative of more than 80 tobacco control researchers across 20 countries of which data from 7 countries are featured in this supplement. This commentary discusses three areas where the research reported here makes a contribution: our understanding of dependence; the effects of socioeconomic factors on cessation; and the potential utility of support programs. But first, we describe the context for this research.

In work that we have not yet published, comparing results across the ITC family of countries, it is apparent that there are considerable differences between countries in the level of quitting activity and the supports used. We believe that much of this variation reflects differences in the history of tobacco control efforts of the country and that some is due to policy decisions as to the form of supports to provide and/or subsidize. Such decisions are likely at least in part affected by the sorts of help smokers in the country are interested in using, which is at present a poorly understood function of cultural factors, the extent to which tobacco use is seen as both damaging and socially undesirable and their experiences of trying to quit.

Two papers in particular (Borland, Yong, Balmford et al., this issue; and Li et al., this issue) help shed light on the emerging evidence that determinants of trying to quit are fundamentally different to those determining maintenance (Hyland et al., 2006; West et al., 2001). Smokers from the United States, United Kingdom, Canada, and Australia were studied and a perverse relationship was found in that a range of expectancy and other motivation-related measures that strongly predict making quit attempts were negatively associated with success, an effect only partially mediated by the measures of dependence and selfefficacy used in the study (Borland et al., 2009). This is not the first time such a perverse relationship has been found. Siahpush et al. (2009) found that financial stress motivated interest in quitting but was negatively associated with success, even though success reduced financial stress. By contrast, Li et al. (this issue) found somewhat different relationships in Malaysia and Thailand for motivational variables, with intention (as an index of motivation) predictive of maintenance, but other differences between trying and maintaining, including weaker associations with other measures of dependence. We think that a reason for the differences is that in the Asian countries, where strong campaigns to discourage quitting are relatively recent, there are more smokers who have a degree of volitional control over stopping smoking compared with Western countries, where public education efforts have been ongoing now for nearly half century, and thus, fewer smokers remain who can quit easily. If this explanation is correct, it suggests that the need for more intensive cessation services will grow as more and more of the remaining smokers come to discover that quitting without help appears to be beyond them. We are getting better and better at motivating smokers to try to quit, with established roles for such things as strong mass media led education campaigns (Wakefield et al., 2008), stronger health warnings (Borland et al., 2009), and increased taxes (Jha & Chaloupka, 1999; Reed et al., 2008). Implementing these policies are clearly priority activities for all countries, but if their success leaves a group highly motivated to quit, but unable to do so, they will need to be increasingly complemented by a wider range of more intensive support programs. Even in Australia, where the emphasis has been on

doi: 10.1093/ntr/ntq140

© The Author 2010. Published by Oxford University Press on behalf of the Society for Research on Nicotine and Tobacco. All rights reserved. For permissions, please e-mail: journals.permissions@oxfordjournals.org

International smoking cessation policy guidance

motivating quit attempts rather than on supports, a majority of those making quit attempts now use some form of help (mostly pharmacotherapy; unpublished observation from our ITC data). A recent study has also found that just over half of English smokers used some form of assistance (Kotz, Fidler, & West, 2009).

Reid et al. (this issue) provide evidence that socioeconomic status (SES) differentials in quitting are spread across various aspects of the process, from intention to maintenance, confirming earlier work by Siahpush et al. (2006) with regard to intentions. However, Siahpush et al. (2008) found no such association in Malaysia or Thailand, suggesting different relationships between SES and smoking in these middle-income countries. That the poor are generally worse off materially and less well educated suggests that absolute SES may be less important than relative SES and may be related to alienation, which may be greater in richer economies. Siahpush et al. (this issue) shows that low SES smokers in the four anglo countries are more prone to use cutting down to quit rather than quitting abruptly as a quit method, something found to be related to lower quit success in some studies (Cheong et al., (2007). It is plausible that differences in methods for quitting contribute to differences in quit success by SES group. On a more positive note, Wilson, Weerasekera, Borland et al. (this issue) have shown that targeting services toward a disadvantaged group (in this case New Zealand Maori) can disproportionately increase their use of an evidencebased service (a Quitline), thus potentially acting as an agent to reduce some levels of SES disparity.

We know that the forms of cessation support, as well as the overall amount, vary by country. For example, New Zealand and Australia provide most assistance through quitlines, while the United Kingdom focuses on face-to-face services. Gibson et al. (this issue) provide some evidence that suggests that the strong investment in smoking cessation services delivered through primary care settings in the United Kingdom is a likely partial cause of greater quit rates than among those who try to quit smoking. Wilson, Werasekera, Hoek et al. (this issue) present evidence that promoting the Quitline number on packs is an effective promotional vehicle; every smoker has the number closeby. Australia has been successful in driving down smoking prevalence with strategies that have focused on public education, tax, constraining the industry, and smokefree environments (Scollo & Winstanley, 2008). Australia has focused its cessation supports on a national network of quitlines and provision of pharmacotherapies (some subsidized). As a result, there are limited face-to-face cessation services that are not used by many. Australia's successes in lowering smoking prevalence demonstrates that providing the most intensive cessation services is not necessary to make progress. However, having some form of help available may be important, and as we note above, demand for supports has been growing rapidly in Australia. For example, in strong anxiety-evoking ads that depict smoking-related harms, including the quitline number, prompts the action to quit, and minimizes hopeless resignation. Promoting the quitline reinforces the message that smokers can do something to reduce their risks of smoking-related harm and complements use of strong messages depicting potential harms (Hill, Chapman & Donovan, 1998).

As countries come together to consider the kinds of guidelines that will be useful to promote smoking cessation, it seems clear that a "one size fits all" strategy is unlikely to be possible or necessarily effective. Countries should be strategic about the ways in which they develop smoking cessation services and provide access to these services, both pharmaceutical aids and advice-based support programs. They should consider the range and form of supports that fit best into their existing health care systems, ways of maximizing access to the help when needed, and they should actively promote these services to ensure that they are used. Putting Quitline phone numbers or Web site addresses on cigarette packs that link directly to services is one inexpensive way to do this. Countries cannot just depend on health professionals providing opportunistic advice. Many health professionals do not provide advice routinely. Furthermore, tobacco control strategies that focus on service delivery or giving advice within the health care system are likely to have less impact in low- and middle-income countries where contacts with such services are less frequent. Population-based strategies, such as mass-media campaigns, pictorial health warnings on tobacco packaging, and higher taxes on tobacco products, will be even more important in these countries to encourage quitting and, where necessary, to seek help. However, even where an extensive range of services and aids are available and promoted, in some countries, they are underutilized. This is changing in some countries where the desirability of smoking cessation has been on the public agenda for decades, suggesting that demand for cessation services is something that only grows gradually. Our data suggest that repeated failures to quit may be one factor driving increased demands. Allowing services to grow as demand is created is one way to maximize benefits most efficiently. Our analysis suggests that in countries with a relatively recent history of strong tobacco control measures, the extent of services required may be less than for countries where most smokers have been trying to quit smoking for years and demand for services has grown.

In the future, we will continue to use the longitudinal nature of the ITC surveys to explore determinants of making quit attempts and maintenance of cessation and to try to better understand differences both between and within countries in cessation success. We will be relating quitting to both available supports and to the social context (norms about smoking) in the countries concerned. We hope this will contribute to an increased understanding of not only the potential of strategies to assist cessation but also of the complexities of tobacco dependence.

Funding

Core funding and funding for surveys in multiple countries was provided by U.S. National Cancer Institute, US (P50 CA111326, P01 CA138389, RO1 CA 100362, and R01 CA125116); Canadian Institutes of Health Research (79551); and Ontario Institute for Cancer Research (Senior Investigator Award). In addition, major support for individual countries came from National Health and Medical Research Council of Australia (450110); Cancer Research UK (C312/A3726), Chinese Center for Disease Control and Prevention; Bloomberg Global Initiative—Union Against Tuberculosis and Lung Disease (Mexico 1-06) and the Mexican National Council on Science and Technology (CONACyT Salud-2007-C01-70032), Institut Nationale du Cancer (INCa); Institut Nationale de Prevention et d'Education pour la Sante (INPES); German Cancer

Nicotine & Tobacco Research, Volume 12, Supplement 1 (October 2010)

Research Center, German Ministry of Health; Dieter Mennekes-Umweltstiftung; The Netherlands Organisation for Health Research and Development (ZonMw); New Zealand Health Research Council; and The National Cancer Center of Korea (from Ministry of Health and Welfare).

References

Borland, R., Wilson, N., Fong, H.D., Cummings, K.M., Yong, H.H., Hosking, W., et al. (2009). Impact of graphic and text warnings on cigarette packs: Findings from four countries over five years. *Tobacco Control*, *18*, 358–364.

Cheong, Y.S., Yong, H.H., & Borland, R (2007). Does how you quit affect success? A comparison between abrupt and gradual methods using data from the International Tobacco Control Policy Evaluation Study (ITC). *Nicotine & Tobacco Research*, *9*, 801–810.

Hill, D., Chapman, S., & Donovan, R (1998). The return of scare tactics. *Tobacco Control*, *7*, 5–8.

Hyland, A., Borland, R., Yong, H.-H., McNeill, A., Fong, G., O'Connor, R., et al. (2006). Individual level predictors of cessation behaviours among participants in the International Tobacco Control (ITC) Four Country Survey. *Tobacco Control*, *15*(Suppl. 3), 83–94.

Jha, P., & Chaloupka, F.J (1999). *Curbing the epidemic:* Governments *and the economics of tobacco control.* Washington, DC: The World Bank.

Kotz, D., Fidler, J., & West, R (2009). Factors associated with the use of aids to cessation in English smokers. *Addiction*, *104*, 1403–1410.

Reed, M., Anderson, C.M., Vaughn, J.W., & Burns, D.M (2008). The effect of cigarette price increases on smoking cessation in California. *Prevention Science*, *9*, 47–54.

Scollo, M.M. & Winstanley M.H., (Eds.) (2008). *Tobacco in Australia: Facts and issues* (3rd ed.). Melbourne, Australia: Cancer Council Victoria. Retrieved from http://www.tobaccoinaustralia .org.au

Siahpush, M., Borland, R., Yong, H.H., Foong, K., & Sirirassamee, B (2008). Socio-economic variations in tobacco consumption, intention to quit, and self-efficacy to quit among male smokers in Thailand and Malaysia: Results from the International Tobacco Control-South-East Asia (ITC-SEA) Survey. *Addiction*, *103*, 502–508.

Siahpush, M., McNeil, A., Borland, R., & Fong, G.T (2006). Socioeconomic variations in nicotine dependence, self-efficacy, and intention to quit across four countries: Findings from the International Tobacco Control (ITC) Four Country Survey. *Tobacco Control*, 15(Suppl. III), iii71–iii75.

Siahpush, M., Yong, H.H., Borland, R., Reid, J.L., & Hammond, D (2009). Smokers with financial stress are more likely to want to quit but less likely to try or succeed: Findings from the International Tobacco Control (ITC) Four Country Survey. *Addiction*, *104*, 1382–1390.

Wakefield, M.A., Durkin, S., Spittal, M.J., Siahpush, M., Scollo, M., Simpson, J.A., et al. (2008). Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence. *American Journal of Public Health*, *98*, 1–8.

West, R., McEwan, A., Bolling, K., & Owen, L (2001). Smoking cessation and smoking patterns in the general population: A 1-year follow-up. *Addiction*, *96*, 891–902.