An exploration of socioeconomically disadvantaged smokers’ responses to three tobacco control strategies

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Submitted for the Degree of Doctor of Philosophy

Submitted June, 2014

School of Medicine and Public Health, University of Newcastle.
Statement of Originality
This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library **, being made available for loan and photocopying subject to the provisions of the Copyright Act 1986.
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List of publications included as part of this thesis


**Paper two:** Guillaumier A, Bonevski B, Paul C, D'Este C, Durkin S, Doran C. What type of anti-smoking advertisement is perceived as more effective? An experimental study with a sample of Australian socially disadvantaged welfare recipients. *Under Editorial Review*.


**Paper six:** Guillaumier A, Bonevski B, Paul C. “Cigarettes are priority”: a qualitative study of how Australian socioeconomically disadvantaged smokers respond to rising cigarette prices. *Under Editorial Review*. 
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I attest that Research Higher Degree candidate Ashleigh Guillaumier contributed substantially in terms of study concept and design, data collection and analysis, and preparation of the manuscript entitled:

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Acknowledgements

I have had the great privilege of working with many talented and supportive people over the past three years. Firstly, to my supervisors A/Prof. Billie Bonevski, A/Prof. Christine Paul and Prof. Catherine D’Este, I owe the greatest thanks. I feel very fortunate to have been guided through this process by such smart, successful and generous women. Billie, your tenacity and enthusiasm for this work has been a constant source of inspiration. Thank you for your direction, efficient feedback and constant belief. Chris, your wisdom and penchant for considered input and advice will never cease to impress me. Cate, your statistical knowledge is astounding, as is your patience in supporting and assisting a statistical novice. Thank you to my supervisors for being so generous with their time and guidance, your support has been invaluable.

Secondly, I would like to thank the Social and Community Service Organisations and their clients that participated in this research. The willingness, openness and enthusiasm expressed by participants for contributing to this work was humbling and encouraging. I would also like to thank my co-authors on the papers arising from this work for their generosity and collaborative spirit.

To my colleagues and PhD buddies, thanks for the empathy and entertainment. To my friend Jamie, thank you for taking me under your wing. Laura, Tim and Kristen your antics and anecdotes have been a constant source of amusement. To the CTNMH crew – Vanessa, Kathy, Sarah, Tonelle, Louise and Jo – thank you for the kindness, encouragement, networking and cake!

Finally, to my husband, family and friends – thank you for trying to understand what it is I do every day! Your unwavering love and support has sustained me.
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<th>Description</th>
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<tbody>
<tr>
<td>B&amp;H</td>
<td>Benson and Hedges</td>
</tr>
<tr>
<td>FCTC</td>
<td>Framework Convention for Tobacco Control</td>
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<tr>
<td>HWL</td>
<td>Health warning label</td>
</tr>
<tr>
<td>IRSD</td>
<td>Index of Relative Socio-economic Disadvantage</td>
</tr>
<tr>
<td>ITC-4</td>
<td>International Tobacco Control Four-Country Survey</td>
</tr>
<tr>
<td>MMC</td>
<td>Mass media campaign</td>
</tr>
<tr>
<td>NRT</td>
<td>Nicotine Replacement Therapy</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>RA</td>
<td>Research Assistant</td>
</tr>
<tr>
<td>SCSO</td>
<td>Social and Community Service Organisation</td>
</tr>
<tr>
<td>SEIFA</td>
<td>Socio-economic Index for Areas</td>
</tr>
<tr>
<td>SES</td>
<td>Socioeconomic status</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
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Synopsis

Although coordinated tobacco control approaches have been successful in reducing population prevalence rates of smoking, tobacco continues to account for significant morbidity and mortality. There also persists an inverse relationship between socioeconomic status and smoking prevalence that is evident both within and between countries. In Australia smoking rates are disproportionately high among groups who experience multiple levels of social and economic disadvantage such as those with low-income, indigenous populations, the long-term unemployed, individuals who are homeless and those with a mental illness. Limited research has assessed the impact of tobacco control interventions among highly socioeconomically disadvantaged groups with high smoking rates. The aim of this thesis was to explore how socioeconomically disadvantaged smokers in Australia respond to and engage with three tobacco control measures (mass media campaigns, plain packaging and health warning labels, and price). Participants were clients accessing non-government social and community service organisations for the provision of crisis aid and social and financial welfare assistance.

Paper one “Anti-tobacco mass media and socially disadvantaged groups: a systematic and methodological review” presents the results of a literature review examining evidence of the differential effectiveness of mainstream and targeted mass media campaigns according to socio-demographic group. Findings varied across studies and outcome measures. While socioeconomically disadvantaged smokers may be less likely to recall general population campaigns compared to more advantaged groups, they may be equally likely to perceive these campaigns as effective and to quit in
response. Overall, there is a lack of methodologically rigorous research investigating the effectiveness of anti-tobacco mass media campaigns, particularly among highly socioeconomically disadvantaged groups. It appears that some mainstream campaigns have the potential to be effective among socioeconomically disadvantaged smokers, however more research is needed. This paper has been published in the journal ‘Drug and Alcohol Review’.

**Paper two** “What type of anti-smoking advertisement is perceived as more effective? An experimental study with a sample of Australian socially disadvantaged welfare recipients” evaluated responses to key anti-smoking message types (‘why-to-quit’ and ‘how-to-quit’ messages) among highly socioeconomically disadvantaged smokers (n = 354). The influence of nicotine dependence and cessation cognitions on ratings of message effectiveness was also assessed. To effectively promote cessation among socioeconomically disadvantaged smokers, mass media campaigns should include a high rotation of ‘why-to-quit’ television advertisements featuring negative emotive content and graphic imagery. Socioeconomically disadvantaged smokers reported high interest in quitting, but had limited quit success. Research on ways to improve the ‘how-to-quit’ message to capitalise on quit interest, motivate quit attempts and support cessation among socioeconomically disadvantaged groups with high smoking rates is needed. This paper is under editorial review.

**Paper three** “Tobacco health warning messages on plain cigarette packs and in television campaigns: A qualitative study with Australian socioeconomically disadvantaged smokers” describes a qualitative study using six focus groups to explore how socioeconomically disadvantaged smokers engage with health-risk and cessation-benefit messages communicated via
mass media campaigns and cigarette pack health warning labels. Some tobacco warning messages may not be resonating with disadvantaged smokers. Participants reported message avoidance behaviours, self-exempting beliefs towards warning message content and considered themselves to be desensitised to tobacco-related health warnings. Warning messaging should continue to use emotive content and address false beliefs about tobacco health-effects, but might also explore featuring more immediately relatable health concerns and providing more practical cessation advice. Discussions also indicated cigarette plain packaging negatively impacted on product perceptions and experience. This paper is published in the journal ‘Health Education Research’.

**Paper four** “Socioeconomically disadvantaged smokers’ ratings of plain and branded cigarette packaging: an experimental study” tested the potential impact of cigarette plain packaging among socioeconomically disadvantaged smokers (n=354) prior to policy implementation in Australia. The experimental quantitative study used computer touchscreen survey methodology. Plain cigarette packs stripped of branding elements and featuring larger health warning labels were associated with reduced positive brand appeal and purchase intentions. This is the first study of its type providing evidence of the potential effectiveness of cigarette plain packaging policy among disadvantaged smokers. The paper has been published in the journal ‘BMC Public Health’.

**Paper five** “Paying the price: A cross-sectional survey of Australian socioeconomically disadvantaged smokers’ responses to hypothetical cigarette price rises” assessed the use of strategies to minimise the impact of cigarette price rises across two hypothetical price rise scenarios, and measured the
possible influence of financial stress. Consistent intended use of price-minimisation strategies to manage smoking costs was reported, and financial stress appeared to have little effect. Larger cigarette price increases (i.e. 20%) are significantly more likely to motivate smokers to consider quitting compared with smaller price rises (i.e. 10%). Smokers who indicated they would not change their smoking behaviour in response to price rises had heavy nicotine dependence, large weekly tobacco expenditures, and made fewer quit attempts in the past year indicating they may require additional cessation support. This paper has been published in the journal ‘Drug and Alcohol Review’.

**Paper six** “‘Cigarettes are priority’: A qualitative study of how Australian socioeconomically disadvantaged smokers respond to rising cigarette prices” used qualitative interviews with socioeconomically disadvantaged smokers (n=20) to further examine the wider social and economic impacts of increasing cigarette taxes. To maintain smoking despite rising prices, socioeconomically disadvantaged smokers reduced household spending, consequently leading to further social and economic deprivation. Participants reported going without meals, substituting meal choices and not paying bills. The provision of additional assistance to smokers who may find it difficult to quit unaided, particularly during times of tobacco taxation increases, should be considered. This paper is currently under editorial review.

In conclusion, the research contained within this thesis is the first in Australia to recruit highly socioeconomically disadvantaged smokers to examine responses to population-level tobacco control measures. The findings highlight ways current tobacco control interventions might be improved to increase effectiveness among socioeconomically disadvantaged smokers. Increasing the
effectiveness of tobacco control strategies and adequately monitoring the impact of these interventions among highly disadvantaged groups with the highest smoking rates and documented poor quit success is pivotal to addressing the social gradient in smoking rates.