Developing consensus on the strategic priorities for the prevention of obesity amongst the Australian population.

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Abstract

Background: Previous research has identified key barriers to obesity-related policy implementation internationally and in Australia. Food industry stakeholders emphasise the lack of evidence and propose ethical concerns of a 'nanny state' around population-wide policies to regulate obesogenic environments, undermining public and political support for government intervention. Policy framing, and public and political support are essential for successful policy adoption, and collaborative research is essential to strengthen pathways to action. This thesis describes a body of research that is concerned with how governments can influence choice through obesity-related policy, with a specific focus on the concepts of policy intrusiveness and impact to autonomy.

Aim: The aim of the thesis is to explore the relevance of the two concepts, intrusiveness and autonomy, in driving the barriers to policy adoption, and propose a priority setting framework, informed by stakeholder consensus, that considers the ethical values of intrusiveness and autonomy to support mobilisation of obesity policy.

Methods: A review and meta-analysis aimed to assess the relevance of 'intrusiveness 'and 'autonomy' to school-based obesity prevention interventions and identify whether the levels account for the variance in the effectiveness of, and heterogeneity among, interventions reported in published trials. Secondly, a systematic review of choice architecture interventions was conducted and aimed to explore the effectiveness of positioning/placement interventions on beverage purchase and consumption. The third study comprised a document analysis of stakeholder's submissions to the federal Government Inquiry on Obesity. A content analysis of policy recommendations provided by stakeholders was conducted to explore the feasibility of classifying stakeholder submissions, according to their intrusiveness and impact on individual autonomy. Further, the study aimed to identify similarities and differences in policy options recommended by different stakeholder groups, with regard to impact on autonomy. Finally, a policy-Delphi study was modified to bring forward the voice of under-represented stakeholders (namely consumers, public health practitioners and policy makers). The study design facilitated a collaboration amongst these stakeholder groups, in isolation from potentially vested interests (specifically academics and food industry). The study aimed to identify the extent to which perceptions of effectiveness, intrusiveness and autonomy

govern prioritisation of policy options by these stakeholders, and describe the feasibility of the method to explore consensus amongst this collaboration.

Results: The results of the first review indicate an association between the concepts of intrusiveness, autonomy and the effectiveness of interventions implemented in the school setting. The findings of the second review highlight a lack of primary research studies that investigate placement intervention effectiveness for beverage purchase and consumption, and recommends greater research activity given the likely acceptability of choice architecture interventions. The key findings of the document analysis of submissions to government indicate that stakeholders advocate intrusive and nonintrusive policy options which enhance individual autonomy, over those that reduce autonomy; however, this may differ according to setting, target behaviour and between five stakeholder groups. The findings highlight general similarities in recommendations across the groups, and gives rise to the possibility of consensus amongst stakeholders through the platform of autonomy. Finally, the result of the policy Delphi study illustrates a remarkably high level of consensus between three groups. An inconsistency between stakeholders' perception of policy intrusiveness and that predicted by ethical frameworks and vested interest lobbying is emphasised. A qualitative analysis indicates several potential contributors to individual perceptions of policy intrusiveness and impact on autonomy in the context of obesity-related policy.

Conclusions: The utility of collaborative research methods has been demonstrated by the research presented in this thesis. The findings emphasise the value of bringing forward under-represented views, to rebalance debate, and suggest that this may be the key to bolder obesity-related policies. There is scope to apply the methods in other national contexts and towards other complex public health issues where decision making is hampered by a lack of evidence. The priorities of dominant perspectives may deviate from other stakeholder groups, and where commercial and academic conflicts of interest are excluded from debate, there is high-level consensus around effectiveness and two ethical considerations to obesity policy adoption. Finally, reframing policy options through their impact on individual autonomy may strengthen societal support for bolder action. Despite currently limited empirical evidence for the effectiveness of population-wide policy to address obesity, governments should be confident in implementing those which are perceived to simultaneously enhance individual autonomy and the population's health. According to this research, this comprises the majority of obesity-related food policy options available to the Australian Government.

Declaration

This thesis is submitted to Bond University in fulfilment of the requirements of the degree of Doctor of Philosophy (PhD). This thesis represents my own original work towards this research degree and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

Name: Emily Haynes

Date: 4th May 2017

Ethics declaration

The research associated with this thesis received ethics approval from the Bond University Human Research Ethics Committee. Ethics application number: 0000015557

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Haynes E, Palermo C, Reidlinger DP. Modified Policy-Delphi study for exploring obesity prevention priorities. *BMJ Open*. 2016;6:e011788. doi:10.1136/bmjopen-2016-011788

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Haynes E. Hughes R. Reidlinger D. Enhancing or diminishing autonomy for obesity prevention: An analysis of the 'intrusiveness' of policy recommendations to the Australian government. Obes Facts 2016; 9(1):p 61. DOI:10.1159/000446744.

Haynes, E. Reidlinger, D. Hughes, R. Enhancing or diminishing autonomy for obesity prevention: An analysis of the ' intrusiveness' of policy recommendations to the Australian government. Obesity Reviews. 2016; 17 (2); 192. DOI: 10.1111/obr.12403

Haynes, E. Reidlinger, D. Diversity of stakeholder recommendations for responding to obesity in Australia: An investigation into the influence of options on autonomy. Obesity Reviews. Obesity Reviews. 2016; 17 (2); 192. DOI: 10.1111/obr.12403.

Haynes, E. Reidlinger, D. To enhance or diminish autonomy in responding to obesity: Similarities and differences across stakeholder recommendations. Obes Facts 2016; 9(1):p 150. DOI:10.1159/000446744.

Haynes, E. Reidlinger, D. Glasziou, P. Palermo, C. A modified ' Priority setting Partnership' for obesity prevention policy in Australia: Investigating the recommended levels of intrusiveness. *Obesity Reviews*. 2016. 17 (Suppl. 2); 196. DOI: 10.1111/obr.12403.

Haynes E. Palermo C. Reidlinger D. A modified 'Priority Setting Partnership' for obesity prevention policy in Australia: Investigating the recommended levels of intrusiveness. *Obesity Facts*. 2016;9(suppl 1) P146. DOI:10.1159/000446744

Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
BMI	Body mass index
CHD	Coronary Heart Disease
COI	Conflict of interest
CVD	Cardiovascular Disease
GBD	Global burden of disease
GLOPAN	Global Panel on Agriculture and Food Systems for Nutrition
INFORMAS	International Network for Food and Obesity / non-communicable Diseases Research, Monitoring and Action Support
IQR	Inter-quartile range
JLA	James Lind Alliance
NCD	Non-communicable disease
NHMRC	National Health and Medical Research Council
NHS	National Health Service
OFSTED	Office for Standards in Education, Children's Services and Skills
PPI	Public and patient involvement
PROSPERO	International prospective register of systematic reviews
RCT	Randomised controlled trial
SPSS	Statistical Packages for the Social Sciences
SSB	Sugar sweetened beverage
WHO	World Health Organisation

Intrusive: To restrict the liberties of individuals (Nuffield Council, 2007).

Autonomy: The capacity to self-rule (Griffiths & West., 2015)

The Nuffield Ladder of Intervention: A framework developed by the Nuffiled Council of Bioethics in Public Health Ethics (2007); underpinned by the concept of 'intrusiveness'. For details of the framework see Section 1.3.1.

The Balanced Ladder of Intervention: Referred to as the 'Balanced Ladder'; underpinned by the concept of 'autonomy' developed by Griffiths & West (2015) . For details of the framework see Section 1.3.1.

Liberalism: A political theory which favours individual liberty and equality.

Paternalism: Interference of a state or an individual with another person, against their will, and justified by a claim that the person interfered with will be better off or protected from harm.

Patient and public involvement (PPI): Defined by the National Institute for Health Research (NIHR) as '…research being carried out 'with' or 'by' members of the public rather than 'to', 'about' or 'for' them'. (INVOLVE, 2017).

James Lind Alliance: The JLA is a non-profit making initiative which was established in 2004. It brings patients, carers and clinicians together to identify and prioritise the unanswered questions about the effects of treatments that they agree are most important. (Cowen & Oliver 2013).

Underrepresented stakeholder: *Individuals* who have limited access or direct pathways to inform obesity-related policy.

Contribution to thesis

School obesity prevention; the intrusiveness and effectiveness of interventions: Review and Meta-Analysis (Chapter 3)

Authors	Conception & design	Study selection	Data extraction	Meta-Analysis	Drafting of manuscript	Critical revision
Emily Haynes	85	70	80	90	100	-
Dianne Reidlinger	-	-	20	10	-	100
Roger Hughes	10	25	-	-	-	-
Paul Glasziou	5	5	-	-	-	-

The effect of 'moderate' intrusion; nudging in the retail environment: Systematic Review (Chapter 4)

Authors	Conception & design	Study selection	Data extraction	Drafting of manuscript	Critical revision
Emily Haynes	70	50	80	100	-
Dianne Reidlinger	20	20	-	-	100
Suetonia Palmer	10	30	20	-	-
Ruth Mitchell	-	10	-	-	-

Obesity prevention advocacy in Australia: an analysis of policy impact on autonomy (Chapter 5)

Authors	Conception & design	Data collection	Data analysis	Drafting of manuscript	Critical revision
Emily Haynes	90	80	70	100	-
Dianne Reidlinger	-	20	30	-	80
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Authors	Conception & design	Data collection	Data analysis	Drafting of manuscript	Critical revision
Emily Haynes	80	80	70	100	
Dianne Reidlinger	20	20	30	-	100

Stakeholder perceptions of obesity-related food policy options for Australia: A modified-Policy Delphi study (Chapter 6).

Authors	Conception & design	Data collection	Data analysis	Drafting of manuscript	Critical revision
Emily Haynes	60	80	70	100	-
Dianne Reidlinger	30	10	15	-	75
Claire Palermo	10	10	15	-	25

Perceptions of policy intrusiveness and impact on autonomy: A qualitative analysis of policy Delphi data. (Chapter 7)

Authors	Conception & design	Data collection	Data analysis	Drafting of manuscript	Critical revision
Emily Haynes	60	80	70	100	-
Dianne Reidlinger	30	10	20	-	75
Claire Palermo	10	10	10	-	25