Development and evaluation of an intervention providing insight into the tobacco industry to prevent smoking uptake: a mixed-methods study

Lisa Szatkowski,¹* John Taylor,¹ Amy Taylor,¹ Sarah Lewis,¹ John Britton,¹ Ann McNeill,² Linda Bauld,³ Qi Wu,⁴ Steve Parrott,⁴ Laura Jones⁵ and Manpreet Bains¹

¹Division of Epidemiology and Public Health, University of Nottingham, Nottingham, UK ²Addictions Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK ³Institute for Social Marketing, University of Stirling, Stirling, UK ⁴Department of Health Sciences, University of York, York, UK ⁵Institute of Applied Health Research, University of Birmingham, Birmingham, UK

*Corresponding author

Declared competing interests of authors: Laura Jones receives personal fees from the National Centre for Smoking Cessation and Training, outside the submitted work. Sarah Lewis is a member of the National Institute for Health Research Health Services and Delivery Research programme researcher-led board.

Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

Published September 2016 DOI: 10.3310/phr04090

Plain English summary

Providing insight into the tobacco industry to prevent smoking uptake Public Health Research 2016; Vol. 4: No. 9 DOI: 10.3310/phr04090

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Plain English summary

Many smokers become addicted to smoking as children. It has been suggested that teaching children about tobacco industry practices is an effective way to prevent them from starting to smoke. We tested an interactive classroom-based intervention based on this premise (called 'Operation Smoke Storm') to see if it was effective at preventing children from starting to smoke.

Operation Smoke Storm was delivered to Year 7 students (aged 11–12 years) in two schools in the UK. Feedback from students and teachers was used to improve the intervention and to create a 'booster' lesson for delivery in Year 8 (when students were aged 12–13 years) and a take-home family booklet to accompany the Year 7 lessons. The improved Operation Smoke Storm, plus the booster session and family booklet, was then tested with students. Students completed questionnaires asking about their smoking behaviour before the Year 7 and after the Year 8 lessons. Their answers were compared with those from students in other schools who did not receive Operation Smoke Storm but who were asked identical questions.

Students enjoyed Operation Smoke Storm and reported learning new information about the harms of smoking and the tobacco industry. However, we found no clear difference in the proportion of students who had ever smoked or were susceptible to smoking between those who did and those who did not receive the intervention.

In conclusion, we found that Operation Smoke Storm is an acceptable intervention for Year 7 and 8 students but does not appear to have prevented smoking uptake in this group of participants.

Public Health Research

ISSN 2050-4381 (Print)

ISSN 2050-439X (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: nihredit@southampton.ac.uk

The full PHR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/phr. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the Public Health Research journal

Reports are published in *Public Health Research* (PHR) if (1) they have resulted from work for the PHR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Public Health Research* are termed 'systematic' when the account of the search, appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health Research (NIHR), evaluates public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health. The Public Health Research programme also complements the NIHR Health Technology Assessment programme which has a growing portfolio evaluating NHS public health interventions.

For more information about the PHR programme please visit the website: http://www.nets.nihr.ac.uk/programmes/phr

This report

The research reported in this issue of the journal was funded by the PHR programme as project number 11/3010/02. The contractual start date was in January 2013. The final report began editorial review in October 2015 and was accepted for publication in April 2016. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health.

© Queen's Printer and Controller of HMSO 2016. This work was produced by Szatkowski *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).

Public Health Research Editor-in-Chief

Professor Martin White Director of Research and Programme Leader, UKCRC Centre for Diet and Activity Research (CEDAR), MRC Epidemiology Unit, Institute of Metabolic Science, School of Clinical Medicine, University of Cambridge; Visiting Professor, Newcastle University; and Director, NIHR Public Health Research Programme

NIHR Journals Library Editor-in-Chief

Professor Tom Walley Director, NIHR Evaluation, Trials and Studies and Director of the EME Programme, UK

NIHR Journals Library Editors

Professor Ken Stein Chair of HTA Editorial Board and Professor of Public Health, University of Exeter Medical School, UK

Professor Andree Le May Chair of NIHR Journals Library Editorial Group (EME, HS&DR, PGfAR, PHR journals)

Dr Martin Ashton-Key Consultant in Public Health Medicine/Consultant Advisor, NETSCC, UK

Professor Matthias Beck Chair in Public Sector Management and Subject Leader (Management Group), Queen's University Management School, Queen's University Belfast, UK

Professor Aileen Clarke Professor of Public Health and Health Services Research, Warwick Medical School, University of Warwick, UK

Dr Tessa Crilly Director, Crystal Blue Consulting Ltd, UK

Dr Eugenia Cronin Senior Scientific Advisor, Wessex Institute, UK

Ms Tara Lamont Scientific Advisor, NETSCC, UK

Professor Elaine McColl Director, Newcastle Clinical Trials Unit, Institute of Health and Society, Newcastle University, UK

Professor William McGuire Professor of Child Health, Hull York Medical School, University of York, UK

Professor Geoffrey Meads Professor of Health Sciences Research, Health and Wellbeing Research and Development Group, University of Winchester, UK

Professor John Norrie Health Services Research Unit, University of Aberdeen, UK

Professor John Powell Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK

Professor James Raftery Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

Dr Rob Riemsma Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

Professor Helen Roberts Professor of Child Health Research, UCL Institute of Child Health, UK

Professor Jonathan Ross Professor of Sexual Health and HIV, University Hospital Birmingham, UK

Professor Helen Snooks Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Professor Jim Thornton Professor of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University of Nottingham, UK

Professor Martin Underwood Director, Warwick Clinical Trials Unit, Warwick Medical School, University of Warwick, UK

Please visit the website for a list of members of the NIHR Journals Library Board: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: nihredit@southampton.ac.uk