Barriers to and facilitators of smoking cessation in pregnancy and following childbirth: literature review and qualitative study

Linda Bauld,1,2 Hilary Graham,3 Lesley Sinclair,1,2* Kate Flemming,3 Felix Naughton,4,5 Allison Ford,1,2 Jennifer McKell,1,2 Dorothy McCaughan,3 Sarah Hopewell,5 Kathryn Angus,1,2 Douglas Eadie1,2 and David Tappin6

1Institute for Social Marketing, University of Stirling, Stirling, UK  
2UK Centre for Tobacco and Alcohol Studies, University of Stirling, Stirling, UK  
3Department of Health Sciences, University of York, York, UK  
4School of Health Sciences, University of East Anglia, Norwich, UK  
5Behavioural Science Group, University of Cambridge, Cambridge, UK  
6Child Health, School of Medicine, Dentistry & Nursing, University of Glasgow, Glasgow, UK

*Corresponding author l.a.sinclair@stir.ac.uk

Declared competing interests of authors: The Institute for Social Marketing is a member of the UK Centre for Tobacco and Alcohol Studies (UKCTAS; www.ukctas.ac.uk). Funding for UKCTAS from the British Heart Foundation, Cancer Research UK, the Economic and Social Research Council, the Medical Research Council and the National Institute for Health Research, under the auspices of the UK Clinical Research Collaboration, is gratefully acknowledged. The funders had no role in study design, data collection and analysis, decision to publish or preparation of the manuscript.

Published June 2017  
DOI: 10.3310/hta21360

Plain English summary

Smoking cessation in pregnancy and following childbirth

Health Technology Assessment 2017; Vol. 21: No. 36  
DOI: 10.3310/hta21360

NIHR Journals Library www.journalslibrary.nihr.ac.uk
Plain English summary

Smoking in pregnancy harms the health of mothers and babies, yet many women find it difficult to stop, and one in eight pregnant women in the UK continues to smoke. Smoking is influenced by many factors. In this study we used a model called the social-ecological framework to better understand the factors that influence whether someone continues to smoke or stops during pregnancy. We carried out an assessment (review) of the literature and carried out interviews with three groups: pregnant women, their partners (or another person close to the pregnant woman) and health-care professionals. This review included interviews that took place in a number of countries with these three groups and involved 1440 people. Our interviews were with 121 people in two areas: one in Scotland and one in England. The main themes in the reviews and interviews were similar, with some exceptions. We found that issues that prevent women from stopping smoking (barriers) and things that help (facilitators) exist at the individual level (such as knowledge, beliefs and resources), the interpersonal level (such as relationships with partners and professionals), at the community and society levels (such as whether or not smoking in pregnancy is acceptable) and, importantly, at the organisational level (such as services provided and workplace practices). Professionals working in a number of different organisations have a key role to play in supporting women to quit, particularly through referral to Stop Smoking Services, which provide counselling and nicotine replacement therapy. Our study suggests areas for improvement to existing services, such as improving professionals’ ability to offer accurate advice, and also recommends promising areas for future research, such as financial incentives, self-help and methods that involve the support of family and friends.
Criteria for inclusion in the Health Technology Assessment journal

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

Reviews in Health Technology Assessment 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.

HTA programme

The HTA programme, part of the National Institute for Health Research (NIHR), was set up in 1993. It produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. ‘Health technologies’ are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care.

The journal is indexed in NHS Evidence via its abstracts included in MEDLINE and its Technology Assessment Reports inform National Institute for Health and Care Excellence (NICE) guidance. HTA research is also an important source of evidence for National Screening Committee (NSC) policy decisions.

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

This report

The research reported in this issue of the journal was funded by the HTA programme as project number 11/93/01. The contractual start date was in May 2013. The draft report began editorial review in October 2015 and was accepted for publication in October 2016. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the draft 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 HTA 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 HTA programme or the Department of Health.

© Queen’s Printer and Controller of HMSO 2017. This work was produced by Bauld 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).
Health Technology Assessment Editor-in-Chief

Professor Hywel Williams  Director, HTA Programme, UK and Foundation Professor and Co-Director of the Centre of Evidence-Based Dermatology, University of Nottingham, UK

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

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

Dr Catriona McDaid  Senior Research Fellow, York Trials Unit, Department of Health Sciences, University of York, 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 Group, University of Winchester, UK

Professor John Norrie  Chair in Medical Statistics, University of Edinburgh, 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: journals.library@nihr.ac.uk