## An app-, web- and social support-based weight loss intervention for adults with obesity: the HelpMeDolt! feasibility RCT

Sharon Anne Simpson,<sup>1</sup>\* Lynsay Matthews,<sup>1</sup> Juliana Pugmire,<sup>1</sup> Alex McConnachie,<sup>2</sup> Emma McIntosh,<sup>3</sup> Elinor Coulman,<sup>4</sup> Kathryn Hughes,<sup>4</sup> Mark Kelson,<sup>5</sup> Sarah Morgan-Trimmer,<sup>6</sup> Simon Murphy,<sup>7</sup> Olga Utkina-Macaskill<sup>1</sup> and Laurence Moore<sup>1</sup>

- <sup>1</sup>Medical Research Council/Chief Scientist Office (MRC/CSO) Social and Public Health Sciences Unit, Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK
- <sup>2</sup>Robertson Centre for Biostatistics, Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK
- <sup>3</sup>Health Economics and Health Technology Assessment Unit (HEHTA), Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK
- <sup>4</sup>Division of Population Medicine, School of Medicine, Cardiff University, Cardiff, UK
- <sup>5</sup>School of Mathematics, College of Engineering, Mathematics and Physical Sciences, University of Exeter, Exeter, UK
- <sup>6</sup>Institute of Health Research, College of Medicine and Health, University of Exeter, Exeter, UK
- <sup>7</sup>Centre for the Development and Evaluation of Complex Interventions for Public Health Improvement (DECIPHer), Cardiff School of Social Sciences, Cardiff University, Cardiff, UK

\*Corresponding author Sharon.Simpson@glasgow.ac.uk

**Declared competing interests of authors:** Sharon Anne Simpson reports membership of the National Institute for Health Research (NIHR) Health Technology Assessment programme, Clinical Evaluation and Trials funding committee from January 2017 to present. She also reports membership of the NIHR Policy Research Programme committee and the Chief Scientist Office Health Improvement, Protection and Services funding committee. Emma McIntosh reports membership of the NIHR Public Health Research funding board from January 2016 to present. There are no other competing interests in relation to personal, developer or institutional proprietorship of the current app or potential future product.

Published March 2020 DOI: 10.3310/phr08030

# **Plain English summary**

### The HelpMeDolt! feasibility RCT

Public Health Research 2020; Vol. 8: No. 3 DOI: 10.3310/phr08030

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

# **Plain English summary**

The majority of adults now own a smartphone and have access to the internet. Application (app) and web-based interventions have the potential to reach large numbers of people at low cost. HelpMeDolt! explored whether or not an app and a website could be used alongside support from family and friends to help people lose weight.

The aim was to develop and explore whether or not the intervention was acceptable to people and to test study processes, such as recruitment. In total, 38 users helped develop the app and website. A total of 109 people then signed up to test the intervention, and 73 of them were given access to the HelpMeDolt! app and website for 12 months. They were able to set weight loss goals, monitor their progress and receive support from one or more people they invited to be a 'helper'. The other 36 people were in the control group and they were given a healthy lifestyle leaflet.

We found that:

- although there were some early technical problems, people were generally positive about the app and website
- people we interviewed liked the idea of using a helper whom they already knew
- helpers did not use the app as much as we had hoped, but they gave support and encouragement in different ways (e.g. sending text messages, meeting up face to face)
- the goal-setting, self-monitoring and social support features of the app were used by people and their helpers.

The results also showed that enough people could be signed up to the study and kept in the study 1 year later, and that data could be easily collected and analysed. Further work is needed to evaluate whether or not the HelpMeDolt! app and website can actually help people to lose weight. If the intervention is shown to work, it may have the potential to be delivered at a low cost to a lot of people.

© Queen's Printer and Controller of HMSO 2020. This work was produced by Simpson *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. 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.

## **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: journals.library@nihr.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), is the leading UK funder of public health research, evaluating 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.

For more information about the PHR programme please visit the website: https://www.nihr.ac.uk/explore-nihr/funding-programmes/public-health-research.htm

#### This report

The research reported in this issue of the journal was funded by the PHR programme as project number 12/180/20. The contractual start date was in April 2015. The final report began editorial review in May 2018 and was accepted for publication in February 2019. 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 and Social Care. 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 and Social Care.

© Queen's Printer and Controller of HMSO 2020. This work was produced by Simpson *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. 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).

### **NIHR Journals Library Editor-in-Chief**

Professor Ken Stein Professor of Public Health, University of Exeter Medical School, UK

### **NIHR Journals Library Editors**

**Professor John Powell** Chair of HTA and EME Editorial Board and Editor-in-Chief of HTA and EME journals. Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK, and Senior Clinical Researcher, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK

**Professor Andrée Le May** Chair of NIHR Journals Library Editorial Group (HS&DR, PGfAR, PHR journals) and Editor-in-Chief of HS&DR, PGfAR, PHR journals

**Professor Matthias Beck** Professor of Management, Cork University Business School, Department of Management and Marketing, University College Cork, Ireland

Dr Tessa Crilly Director, Crystal Blue Consulting Ltd, UK

Dr Eugenia Cronin Senior Scientific Advisor, Wessex Institute, UK

Dr Peter Davidson Consultant Advisor, Wessex Institute, University of Southampton, UK

Ms Tara Lamont Director, NIHR Dissemination Centre, 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 Wellbeing Research, University of Winchester, UK

Professor John Norrie Chair in Medical Statistics, University of Edinburgh, 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 Great Ormond Street 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 Ken Stein Professor of Public Health, University of Exeter Medical School, UK

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

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

Please visit the website for a list of editors: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: journals.library@nihr.ac.uk