A group memory rehabilitation programme for people with traumatic brain injuries: the ReMemBrIn RCT

Roshan das Nair,^{1,2,3}* Lucy E Bradshaw,⁴ Hannah Carpenter,⁵ Sara Clarke,⁵ Florence Day,⁴ Avril Drummond,⁶ Deborah Fitzsimmons,⁷ Shaun Harris,⁷ Alan A Montgomery,⁴ Gavin Newby,⁸ Catherine Sackley⁹ and Nadina B Lincoln⁵ on behalf of the ReMemBrIn Trial Collaborative Group

¹Division of Psychiatry and Applied Psychology, University of Nottingham, Nottingham, UK ²Institute of Mental Health, Nottingham, UK

³Department of Clinical Psychology and Neuropsychology, Nottingham University Hospitals NHS Trust, Nottingham, UK

⁴Nottingham Clinical Trials Unit, University of Nottingham, Nottingham, UK ⁵Division of Rehabilitation and Ageing, University of Nottingham, Nottingham, UK ⁶School of Health Sciences, University of Nottingham, Nottingham, UK ⁷Swansea Centre for Health Economics, Swansea University, Swansea, UK ⁸Newby Psychological Services Ltd, Northwich, UK ⁹Division of Health and Social Care, King's College London, London, UK

*Corresponding author roshan.dasnair@nottingham.ac.uk

Declared competing interests of authors: Alan A Montgomery reports membership of the National Institute for Health Research (NIHR) Health Technology Assessment Clinical Evaluation and Trials Board. Catherine Sackley and Roshan das Nair report membership of the NIHR Health Services and Delivery Research Board.

Published April 2019 DOI: 10.3310/hta23160

Plain English summary

Group memory rehabilitation for traumatic brain injury: ReMemBrIn RCT

Health Technology Assessment 2019; Vol. 23: No. 16 DOI: 10.3310/hta23160

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

Plain English summary

People with brain injuries often report memory problems. These difficulties can continue long after the injury, causing complications in daily life. Many people do not receive specific help for these memory problems after leaving hospital.

Our study explored whether receiving 'memory rehabilitation' (a group treatment to help people deal with memory difficulties) was better than the treatment that people usually receive to help reduce the frequency of forgetting in daily life.

We recruited 328 people who had memory problems following brain injury. About half were allocated at random to receive memory rehabilitation and half did not have any extra memory treatments, but everyone continued to receive their usual care. Those who had memory rehabilitation were offered 10 group sessions at which strategies were taught to help them cope with memory problems. We asked all participants to complete memory tests and questionnaires at the start of the study and again 6 and 12 months afterwards to find out whether the memory rehabilitation had any effect. Some participants were also interviewed about the study.

At the 6- and 12-month assessments, there were no differences between those who received memory rehabilitation and those who did not in terms of how often participants reported memory problems in their daily lives or how well they performed on memory tests. We also did not find any differences in participants' mood or quality of life. However, individual goals set by the participants at the start of the study were a little better met by those who received memory rehabilitation than by those who did not. The memory rehabilitation did not represent value for money. In interviews, participants reported positive experiences of taking part in the study and of attending the group sessions.

This group memory rehabilitation programme is unlikely to help people with memory problems following a brain injury more than the usual treatment that people receive. Some people may benefit more from memory rehabilitation than others, but this needs further investigation.

Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.513

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the Clarivate Analytics Science Citation Index.

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 HTA archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hta. 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 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 10/57/24. The contractual start date was in September 2012. The draft report began editorial review in June 2017 and was accepted for publication in December 2017. 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 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 HTA programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2019. This work was produced by das Nair *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 Honorary Professor, University of Manchester, and Senior Clinical Researcher and Associate Professor, 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