

A nurse-led, preventive, psychological intervention to reduce PTSD symptom severity in critically ill patients: the POPPI feasibility study and cluster RCT

Paul R Mouncey,^{1†} Dorothy Wade,^{2†}
Alvin Richards-Belle,¹ Zia Sadique,³ Jerome Wulff,¹
Richard Grieve,³ Lydia M Emerson,⁴ Chris R Brewin,⁵
Sheila Harvey,¹ David Howell,² Nicholas Hudson,¹
Imran Khan,¹ Monty Mythen,⁶ Deborah Smyth,²
John Weinman,⁷ John Welch,² David A Harrison¹
and Kathryn M Rowan^{1*} on behalf of the POPPI Trial
Investigators

¹Clinical Trials Unit, Intensive Care National Audit & Research Centre (ICNARC), London, UK

²Critical Care Department, University College London Hospitals NHS Foundation Trust, London, UK

³Department of Health Services Research and Policy, London School of Hygiene & Tropical Medicine, London, UK

⁴Centre for Experimental Medicine, Queen's University Belfast, Belfast, UK

⁵Research Department of Clinical, Educational and Health Psychology, University College London, London, UK

⁶National Institute for Health Research Biomedical Research Centre, University College London Hospitals NHS Foundation Trust and University College London, London, UK

⁷Institute of Pharmaceutical Science, King's College London, London, UK

*Corresponding author kathy.rowan@icnarc.org

†Joint first authors

Declared competing interests of authors: Richard Grieve is a member of the National Institute for Health Research (NIHR) Health Technology Assessment Commissioning Board since January 2018. Kathryn M Rowan is a member of the NIHR Health Services and Delivery Research Board since September 2014.

Published August 2019

DOI: 10.3310/hsdr07300

Plain English summary

The POPPI feasibility study and cluster RCT

Health Services and Delivery Research 2019; Vol. 7: No. 30

DOI: 10.3310/hsdr07300

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

Plain English summary

Many patients experience severe stress, including hallucinations and delusions, in critical care units. This stress is linked to the development of longer-term psychological problems such as post-traumatic stress disorder (PTSD). Little is done to help prevent these problems because there is limited evidence for what works. Previously, a preventive psychological intervention was developed by this research team, to be led by nurses, to address this problem. The intervention had three elements:

1. create a therapeutic environment in critical care
2. provide three stress support sessions for patients identified as acutely stressed
3. provide a relaxation and recovery programme for patients identified as acutely stressed.

In this study [Psychological Outcomes following a nurse-led Preventative Psychological Intervention for critically ill patients (POPPI)], an education package was created to ensure that the intervention could be delivered across several units. A study was then conducted in which two units tested delivering the intervention and patients and staff were asked if it was acceptable. In another study, trial procedures were tested. The information was used to improve all the parts for a clinical trial to find out if the intervention was effective. In the trial, staff at 12 units were trained to deliver the intervention (group 1). At another 12 units, staff were not trained (group 2). A total of 1458 patients took part. How patients in each group felt 6 months later was compared. It was found that the intervention did not reduce development of PTSD symptom severity and it was very uncertain if the intervention was cost-effective.

In its current form, the research team do not recommend that the psychological intervention is brought into the NHS.

Health Services and Delivery Research

ISSN 2050-4349 (Print)

ISSN 2050-4357 (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 HS&DR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hsdr. 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 Services and Delivery Research* journal

Reports are published in *Health Services and Delivery Research* (HS&DR) if (1) they have resulted from work for the HS&DR programme or programmes which preceded the HS&DR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

HS&DR programme

The Health Services and Delivery Research (HS&DR) programme, part of the National Institute for Health Research (NIHR), was established to fund a broad range of research. It combines the strengths and contributions of two previous NIHR research programmes: the Health Services Research (HSR) programme and the Service Delivery and Organisation (SDO) programme, which were merged in January 2012.

The HS&DR programme aims to produce rigorous and relevant evidence on the quality, access and organisation of health services including costs and outcomes, as well as research on implementation. The programme will enhance the strategic focus on research that matters to the NHS and is keen to support ambitious evaluative research to improve health services.

For more information about the HS&DR programme please visit the website: <http://www.nets.nihr.ac.uk/programmes/hsdr>

This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 12/64/124. The contractual start date was in November 2013. The final report began editorial review in April 2018 and was accepted for publication in December 2018. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR 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 HS&DR 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 HS&DR programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2019. This work was produced by Mouncey *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