A behaviour change package to prevent hand dermatitis in nurses working in health care: the SCIN cluster RCT

Ira Madan,^{1,2}* Vaughan Parsons,^{1,2} Georgia Ntani,³ Alison Wright,⁴ John English,⁵ David Coggon,³ Paul McCrone,⁶ Julia Smedley,⁷ Lesley Rushton,⁸ Caroline Murphy,⁹ Barry Cookson,¹⁰ Tina Lavender¹¹ and Hywel Williams¹²

- ¹Occupational Health Service, Guy's and St Thomas' NHS Foundation Trust, London, UK
- ²King's College London, London, UK
- ³Medical Research Council Lifecourse Epidemiology Unit, University of Southampton, Southampton, UK
- ⁴Centre for Behaviour Change, Department of Clinical, Educational and Health Psychology, University College London, London, UK
- ⁵Dermatology, Circle Nottingham NHS Treatment Centre, Nottingham, UK
- ⁶Centre for the Economics of Mental and Physical Health, King's College London, London, UK
- ⁷Occupational Health Service, University Hospital Southampton NHS Foundation Trust, Southampton, UK
- ⁸Epidemiology and Biostatistics, Imperial College London, London, UK
- ⁹King's Clinical Trial Unit, King's College London, London, UK
- ¹⁰Medical Microbiology, University College London, London, UK
- ¹¹School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK
- ¹²Centre of Evidence Based Dermatology, University of Nottingham, Nottingham, UK

Declared competing interests of authors: Ira Madan reports being the chairperson of the National Institute for Health Research (NIHR)'s Health Technology Assessment (HTA) Mental Health panel from 1 January 2018 to December 2020. Vaughan Parsons reports personal fees from the magazine *Occupational Health at Work* during the conduct of the trial. Alison Wright reports other grants from the NIHR HTA programme during the conduct of the study. Julia Smedley reports other grants from NIHR via Guy's and St Thomas' NHS Foundation Trust (lead centre) during the conduct of the study (HTA reference number 15/107/02). Hywel Williams is Director of the HTA programme and chairperson of the HTA Commissioning Board. From 1 January 2016, he became Programme Director for the HTA programme.

Published October 2019 DOI: 10.3310/hta23580

^{*}Corresponding author ira.madan@kcl.ac.uk

Plain English summary

The SCIN cluster RCT

Health Technology Assessment 2019; Vol. 23: No. 58

DOI: 10.3310/hta23580

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

Plain English summary

 Γ his study was designed to prevent nurses from developing hand dermatitis (eczema). The study recruited student and intensive care unit nurses who were at high risk of hand dermatitis. Overall, 35 study sites took part. Each site was randomised to be in either the 'intervention plus' or the 'intervention light' group. Participants in the intervention plus sites received access to a web-based intervention to change nurses' behaviour to improve hand care together with a written leaflet with advice on how to prevent dermatitis. The student nurse participants in the intervention plus group were provided with personal supplies of hand moisturisers to use during their clinical placements and the study team ensured that the intensive care unit nurses in the intervention plus arm had access to moisturising creams on the wards. Those in the intervention light group received only the written leaflet with advice on how to prevent dermatitis. All participants were reminded to contact their occupational health service early on if they developed hand dermatitis during the study. The main aim was to see if there was a difference between the proportion of participants in the intervention plus and intervention light groups who had hand dermatitis at the beginning of the study and at the end. The study collected photographs of hands at the time of recruitment and after 12 months. Participants completed questionnaires about their skin. The results showed that there was no evidence that the risk of developing hand dermatitis in the intervention light group was greater than that in the intervention plus group.

HTA/HTA TAR

Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 3.819

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

Health Technology Assessment (HTA) research is undertaken where some evidence already exists to show that a technology can be effective and this needs to be compared to the current standard intervention to see which works best. Research can evaluate any intervention used in the treatment, prevention or diagnosis of disease, provided the study outcomes lead to findings that have the potential to be of direct benefit to NHS patients. Technologies in this context mean any method used to promote health; prevent and treat disease; and improve rehabilitation or long-term care. They are not confined to new drugs and include any intervention used in the treatment, prevention or diagnosis of disease.

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.

This report

The research reported in this issue of the journal was funded by the HTA programme as project number 11/94/01. The contractual start date was in June 2013. The draft report began editorial review in December 2017 and was accepted for publication in April 2019. 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 Madan 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