

Slip-resistant footwear to reduce slips among health-care workers: the SSHeW RCT

Sarah Cockayne,^{1*} Caroline Fairhurst,¹
Michael Zand,² Gillian Frost,³ Mark Liddle,³
Rachel Cunningham-Burley,¹ Catherine Hewitt,¹
Heather Iles-Smith,⁴ Lorraine Green,⁵ Emily Bain,²
Misbah Mogradia² and David J Torgerson¹

¹York Trials Unit, Department of Health Sciences, University of York, York, UK

²Health and Safety Executive, Bootle, UK

³Health and Safety Executive, Buxton, UK

⁴Leeds Teaching Hospitals NHS Trust, Leeds, UK

⁵National Institute for Health Research, Leeds Musculoskeletal Biomedical Research Unit, Chapel Allerton Hospital, Leeds, UK

*Corresponding author sarah.cockayne@york.ac.uk

Declared competing interests of authors: Catherine Hewitt declares membership of the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) Commissioning Committee (2015–20) and previous membership of the HTA Assessment Commissioning Sub-Board (Expression of Interest) (2016–17). Michael Zand, Gillian Frost, Mark Liddle, Emily Bain and Misbah Mogradia declare that the Health and Safety Executive run the GRIP rating scheme, which was used to identify the footwear and manufacturer used in the trial, and that Shoes for Crews (Europe) Ltd paid the Health and Safety Executive for testing of footwear under the GRIP rating scheme. David J Torgerson declares that he is Director of York Trials Unit, which receives clinical trials unit funding from NIHR, has previously been a member of various boards [a member of the NHS HTA Commissioning Board (from 2007 to 2010), a member of the NIHR Programme Grants for Applied Research Board (from 2007 to 2011) and a member of the MRC methodology research panel (from 2011 to 2013)] and was a member of the Clinical Trials Unit Standing Advisory Committee (2010–14).

Published February 2021

DOI: 10.3310/phr09030

Plain English summary

The SSHeW RCT

Public Health Research 2021; Vol. 9: No. 3

DOI: 10.3310/phr09030

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

Plain English summary

Slips, trips and falls on the level (as opposed to falls from a height, e.g. a ladder) are the main cause of injury in the workplace. Last year, > 100,000 people hurt themselves as a result of having a slip, trip or fall at work in Great Britain, resulting in nearly 1 million days taken off work. The health and social care sector has some of the highest numbers of slips and trips at work, often due to the type of flooring they walk on. The floors are often smooth and become very slippery when they are wet or dirty. In addition, staff who visit patients in their homes cannot control the type or condition of the flooring on which they walk. One possible way of reducing the number of slips that workers have could be for them to wear slip-resistant footwear.

The Stopping Slips among Health-care Workers trial tested whether or not slip-resistant footwear could stop people slipping at work. We recruited 4553 NHS staff in England to the trial. The people recruited worked in general, clinical and catering areas, and included doctors, nurses, ward clerks, and catering and cleaning staff. A total of 2275 people were offered one free pair of slip-resistant shoes to wear at work. The other 2278 people were asked to wear their own work footwear, but were offered a free pair of slip-resistant shoes once they had finished the trial.

We found that the trial shoes were successful at reducing the number of slips at work, as staff who were provided with the trial shoes had fewer slips than those who wore their own shoes to work. They also had fewer falls after having a slip at work. On the whole, staff liked the slip-resistant shoes. The shoes are potentially good value for money for the NHS.

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 15/05/28. The contractual start date was in October 2016. The final report began editorial review in December 2019 and was accepted for publication in April 2020. 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.

Copyright © 2021 Cockayne *et al.* This work was produced by Cockayne *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: <https://creativecommons.org/licenses/by/4.0/>. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

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 Professor of Digital Health Care, 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 Senior Scientific Adviser (Evidence Use), Wessex Institute, University of Southampton, 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 Emeritus Professor of Wellbeing Research, University of Winchester, 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

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

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