

The SSHeW study - Stopping slips among healthcare workers: a research study about slip resistant footwear in the NHS workplace

Submission date 13/03/2017	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 14/03/2017	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 26/04/2023	Condition category Signs and Symptoms	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

Slips and falls are the main cause of accidents in the workplace. Last year, over 100,000 people hurt themselves as a result of having a slip, trip or fall at work. This is about 40% of all of the injuries which had to be reported to the Health and Safety Executive. These injuries can have a major effect on the individual as well as on employers due to lost days at work. It has been estimated that one million days were taken off work in 2012/13 due to injuries caused by slips, trips or falls. People working in health and social care report the highest numbers of workplace slips and trips, and hospital staff are more likely to slip because of the smooth flooring they walk on, which becomes slippery when it is wet or dirty. One possible way of reducing the number of slips people have could be for them to wear slip resistant shoes. The aim of this study is to find out if slip resistant shoes can stop NHS staff from slipping, falling or hurting themselves.

Who can participate?

Staff working in NHS trusts who have to follow a workplace dress code and who have a mobile phone.

What does the study involve?

After agreeing to take part, participants fill in a questionnaire and reply to text messages reporting if they have a slip at work. Those who complete the texts are then randomly allocated to one of two groups using a computer program. Those in the first group receive one free pair of slip resistant shoes to wear at work for 14 weeks. Those in the second group are asked to wear their own work shoes for the duration of the study. These participants are offered a pair of the slip resistant shoes at the end of the study period. All participants receive a text message once a week for 14 weeks to ask if they have had a slip in the last week. The first time a participant reports a slip by text message, they are telephoned by a researcher or sent a questionnaire in the post to obtain further details of the incident. Participants are given a paper diary in which to record details of any slips, falls or injuries. Once a month people wearing the slip resistant footwear are asked how often they are wearing them via text message. Participants are also sent a paper questionnaire at 14 weeks to collect further information. Some participants are asked to return their footwear so that it can be tested to see how worn the soles are.

What are the possible benefits and risks of participating?
There are no notable benefits or risks involved with participating.

Where is the study run from?

1. Leeds Teaching Hospitals NHS Trust (UK)
2. Cheshire and Wirral Partnership NHS Foundation Trust (UK)
3. York Teaching Hospitals NHS Foundation Trust (UK)
4. Nottingham University Hospitals Trust (UK)
5. Lancashire Care NHS Foundation Trust (UK)
6. University Hospitals of Derby & Burton NHS Foundation Trust (UK)
7. Harrogate and District NHS Foundation Trust (UK)

When is the study starting and how long is it expected to run for?
October 2016 to March 2019

Who is funding the study?
National Institute for Health Research (UK)

Who is the main contact?
Mrs Sarah Cockayne
sarah.cockayne@york.ac.uk

Contact information

Type(s)

Public

Contact name

Mrs Sarah Cockayne

ORCID ID

<https://orcid.org/0000-0002-1288-5497>

Contact details

University of York
Dpt Health Sciences
York Trials Unit
ARRC Building Lower Ground Floor - A/RC005a
York
United Kingdom
YO10 5DD
+44 (0)1904 321736
sarah.cockayne@york.ac.uk

Additional identifiers

Protocol serial number

33569

Study information

Scientific Title

Does slip resistant footwear reduce slips among healthcare workers? A randomised controlled trial

Acronym

SSHeW

Study objectives

The aim of this study is to find out whether wearing slip resistant shoes can reduce the number of slips, falls and injuries NHS staff have at work.

Ethics approval required

Old ethics approval format

Ethics approval(s)

University of York, Dept Health Sciences Research Governance Committee, 02/12/2016, ref: HSRGC/2016/187/A

Study design

Randomised; Interventional; Design type: Prevention, Physical

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Specialty: Health services and delivery research, Primary sub-specialty: Health Services and Delivery Research; UKCRC code/ Disease: Other/ General symptoms and signs

Interventions

All eligible consenting participants, who return a completed baseline questionnaire, will be sent a weekly text message requesting slips data. Eligible participants who return a valid baseline questionnaire and respond to at least two of the data collection texts requesting data on slips, irrespective of whether they experienced a slip, will be randomised into the trial. Participants will be randomly allocated using the York Trials Unit secure web-based randomisation system based on an allocation sequence generated by an independent data systems manager at the York Trials Unit, who is not involved in the recruitment of participants. The randomisation will be stratified by NHS Trust, and block randomisation within Trust will be used with variable block sizes. Participants will be allocated 1:1 to either the control or intervention group.

Control group: Participants will be asked to wear their usual work footwear for 14 weeks after they are randomised into the study. At the end of this period they will be offered a free pair of slip resistant shoes provided by 'Shoes for Crews' and paid for by the Trust.

Intervention group: Participants will receive one pair of 5-star GRIP rated slip resistant footwear provided by 'Shoes for Crews' free of charge to the participant. Footwear will be selected from a trial specific catalogue.

All participants will be followed up for 14 weeks during this time they will receive a weekly text asking for slips data. Participants reporting their first slip will be phoned (added 28/02/2018: or sent a questionnaire by post) and further information collected. In addition the intervention group will receive a monthly text asking about footwear compliance. All participants will be sent a questionnaire 14 weeks after randomisation to collect secondary outcome data. We will evaluate the wear on the sole of the shoes. 15 consenting participant will be asked to continue wearing their intervention footwear beyond the trial period for a further 6, 9 and 12 weeks (45 in total). A qualitative study will be undertaken to explore the acceptability of the footwear, reasons for wearing or not wearing the shoes and views on the impact of the footwear.

Added 12/05/2020:

Sub study

The SSHeW trial will also include a Study within a Trial (SWAT) to investigate if including a pen with a postal follow-up questionnaire increases the response rate.

Intervention Type

Other

Primary outcome(s)

Incidence rate of self-reported slips in the workplace reported via weekly text messages over 14 weeks

Key secondary outcome(s)

Current secondary outcome measures as of 31/05/2018:

1. Time in days from randomisation to date of first fall as reported on final questionnaire at 14 weeks
2. Time in days from randomisation to date of first slip as reported via weekly text messages and follow-up telephone call
3. Incidence rate of self-reported falls resulting from a slip in the workplace reported on final questionnaire at 14 weeks
4. Incidence rate of self-reported falls not resulting from a slip in the workplace reported on final questionnaire at 14 weeks
5. Proportion of participants who report at least one fall on final questionnaire at 14 weeks
6. Proportion of participants who report at least one slip via weekly text messages over 14 weeks
7. Proportion of participants who report a fracture over 14 weeks (numbers permitting)
8. Footwear purchase cost
9. Footwear distribution cost (if significant)
10. Number of full time working days lost due to slip-related injuries over the 14 weeks of the trial, supplemented by Labour Force Survey data on working days lost due to slips, trips and falls. This will be used to estimate temporary staff replacement costs and sickness payments.
11. Healthcare resource use over the 14 weeks of the trial, including hospital admissions, measured by self-report, costed using NHS Reference Costs unit costs database and supplemented where necessary by published data on healthcare treatment costs from relevant injury types
12. NHS Resolution data on non-clinical compensation claims and payments relating to slips under the NHS Liabilities to Third Parties Scheme
13. Duration of cost-effectiveness modelling determined by service life of shoes, estimated from wear on sole of intervention shoes. Measured by participant feedback, visual inspection and slip resistance testing for 15 participants after 6, 9 and 12 months of wear
14. Change in health-related quality of life, measured by EQ-5D-5L for those reporting an injury over the 14 weeks of the trial, compared with general population health

Previous secondary outcome measures as of 10/05/2018:

1. Time in days from randomisation to date of first fall as reported on final questionnaire at 14 weeks
2. Time in days from randomisation to date of first slip as reported via weekly text messages and follow-up telephone call
3. Incidence rate of self-reported falls resulting from a slip in the workplace reported on final questionnaire at 14 weeks
4. Incidence rate of self-reported falls not resulting from a slip in the workplace reported on final questionnaire at 14 weeks
5. Proportion of participants who report at least one fall on final questionnaire at 14 weeks
6. Proportion of participants who report at least one slip via weekly text messages over 14 weeks
7. Proportion of participants who report a fracture over 14 weeks (numbers permitting)
8. Cost-effectiveness

Previous secondary outcome measures:

1. Time in days from randomisation to date of first fall as reported on final questionnaire at 14 weeks
2. Time in days from randomisation to date of first slip as reported via weekly text messages and follow-up telephone call
3. Incidence rate of self-reported falls resulting from a slip in the workplace reported on final questionnaire at 14 weeks
4. Incidence rate of self-reported falls not resulting from a slip in the workplace reported on final questionnaire at 14 weeks
5. Proportion of participants who report at least one fall on final questionnaire at 14 weeks
6. Proportion of participants who report at least one slip via weekly text messages over 14 weeks
7. Number of days off work due to a slip or fall as reported on final questionnaire at 14 weeks
8. Footwear compliance is measured via text messages at 6, 10 and 14 weeks, and on final questionnaire at 14 weeks
9. Reason for slip/fall is measured by follow-up telephone call
10. Footwear worn at time of first slip is measured by follow-up telephone call to first slip
11. Hospital admissions is measured by self-report at 14 weeks
12. Number of days in hospital is measured by self-report at 14 weeks
13. Wear on sole of intervention shoes is measured by participant feedback, visual inspection and slip resistance testing for 15 participants after 6, 9 and 12 months of wear

Completion date

31/05/2019

Eligibility

Key inclusion criteria

Current inclusion criteria as of 02/08/2018:

1. Aged 18 years and over
2. Are NHS employees, who have at least six months remaining on their work contract
3. Are required to adhere to a dress code policy
4. Work at least 60% WTE
5. Work in clinical areas (including wards, outpatient clinics, patients' homes), cafeterias, food preparation areas or areas where food is served or in the general hospital environment (including all clinical/catering areas in addition to the hospital stairs and corridors)
6. Have a mobile phone and agree to receive and send outcome data via text messages

Previous inclusion criteria:

1. Aged 18 years and over
2. Are NHS employees, who have at least six months remaining on their work contract
3. Are required to adhere to a dress code policy
4. Work at least 80% WTE
5. Work in clinical areas (including wards, outpatient clinics, patients' homes), cafeterias, food preparation areas or areas where food is served or in the general hospital environment (including all clinical/catering areas in addition to the hospital stairs and corridors)
6. Have a mobile phone and agree to receive and send outcome data via text messages

Participant type(s)

Health professional

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Total final enrolment

4553

Key exclusion criteria

Current exclusion criteria as of 02/08/2018:

1. Do not have a mobile phone or are unwilling/unable to receive/send text messages
2. Are provided with protective footwear by their employer
3. Temporary or agency staff
4. Staff who have less than 6 months remaining on their employment contract
5. Staff who work in office based areas
6. Staff who are not employed by the NHS
7. Staff who work less than 0.6 WTE

Previous exclusion criteria from 28/02/2018 to 02/08/2018:

1. Do not have a mobile phone or are unwilling/unable to receive/send text messages
2. Are provided with protective footwear by their employer
3. Temporary or agency staff
4. Staff who have less than 6 months remaining on their employment contract
5. Staff who work in office based areas
6. Staff who are not employed by the NHS
7. Staff who work less than 0.8 WTE

Previous exclusion criteria:

1. Do not have a mobile phone or are unwilling/unable to receive/send text messages
2. Are provided with protective footwear by their employer
3. Required to wear prescribed orthopaedic footwear or their footwear requires modifications

to their work shoes by an orthotist

4. Temporary or agency staff

5. Staff who have less than 6 months remaining on their employment contract

6. Staff who work in office based areas

7. Staff who are not employed by the NHS

8. Staff who work less than 0.8 WTE

Date of first enrolment

10/03/2017

Date of final enrolment

10/01/2019

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Leeds Teaching Hospitals NHS Trust

St James' Hospital

Beckett Street

Leeds

United Kingdom

LS9 7TF

Study participating centre

Cheshire and Wirral Partnership NHS Foundation Trust

Academic Unit St Catherine's Hospital

Church Road

Birkenhead

United Kingdom

CH42 0LQ

Study participating centre

York Teaching Hospitals NHS Foundation Trust

York Hospital,

Wigginton Road

York

United Kingdom

YO31 8HE

Study participating centre**Nottingham University Hospitals NHS Trust**

C Floor South Block
Queen's Medical Centre Campus
Derby Road
Nottingham
United Kingdom
NG7 2UH

Study participating centre**Lancashire Care NHS Foundation Trust**

The Lantern Centre
Vicarage Lane
Fulwood
Preston
United Kingdom
PR2 9DW

Study participating centre**University Hospitals of Derby & Burton NHS Foundation Trust**

Uttoxeter Road
Derby
United Kingdom
DE22 3NE

Study participating centre**Harrogate and District NHS Foundation Trust**

Lancaster Park Road
Harrogate
United Kingdom
HG2 7SX

Sponsor information**Organisation**

University of York

ROR

<https://ror.org/04m01e293>

Funder(s)

Funder type

Government

Funder Name

National Institute for Health Research

Alternative Name(s)

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

The datasets analysed during the current study will be available upon request from the Chief Investigator, Professor David Torgerson at david.torgerson@york.ac.uk.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	15/01/2021	18/01/2021	Yes	No
Results article	results of embedded SWAT	09/06/2020	18/01/2021	Yes	No
Results article		01/02/2021	26/04/2023	Yes	No
Protocol article	protocol	15/11/2018	25/11/2019	Yes	No
Participant information sheet	version v3	03/03/2017	14/03/2017	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes