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# 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

**Registration date**
14/03/2017

**Overall study status**
Completed

**Last Edited**
26/04/2023

**Condition category**
Signs and Symptoms

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[X] Results
[_] 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
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# Additional identifiers

### Clinical Trials Information System (CTIS)
Nil known

### 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
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PR2 9DW

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