

Falls Implementation review
FINAL PROTOCOL

Final protocol

PROJECT TITLE: Implementing the evidence for preventing falls among older people: systematic review protocol

Project team:

Vicki Goodwin

Tracy Jones-Hughes

Jo Thompson Coon

Kate Boddy

Ken Stein

Project Advisors:

(no authorship status)

Version/date:

13/07/2010

Falls Implementation review
FINAL PROTOCOL

Research Question:

What are the most effective strategies for implementing the evidence-base to prevent falls among community-dwelling older people?

Background:

Falls are an increasing problem, affecting a third of people aged 65 and over each year.

The estimated number of hip fractures worldwide will rise from 1.66 million in 1990 to 6.26 million in 2050, even if age-adjusted incidence rates remain stable¹.

High quality evidence for preventing falls is available in the form of meta-analyses²⁻⁴, randomised controlled trials⁵⁻⁹ and clinical guidelines^{10;11}; however, this evidence has not necessarily been transferred into changes in clinical practice. As such, falls and fall-related injuries continue to escalate¹² with a less than optimal provision of evidence-based healthcare^{13;14}.

One aspect of this problem originates from the lack of understanding on how best to implement the evidence-base into clinical practice, particularly where the routine practice may be very different to the experimental conditions observed in the original research¹⁵. In practice clinicians and patients may be required to change their behaviour and adopt new practices, and organisations may be required to develop different or new systems of working across professional and organisational boundaries. This is challenging for all when the interventions are complex and multi-faceted.

Aims

The aims of this review are to summarise the most effective methods of implementing evidence based falls prevention for community-dwelling older adults.

Falls Implementation review
FINAL PROTOCOL

Objectives

In order to complete the review, the following objectives will be completed:

1. To identify and select studies evaluating the implementation of interventions and programmes for the prevention of falls among community-dwelling older people;
2. To summarise the characteristics of implementation strategies;
3. To establish the effectiveness of the implementation strategies; and
4. To identify patient and clinician influences on the uptake of evidence-based practice and policy.

Search strategy

The search strategy will comprise a search of the following electronic databases: AMED, Cochrane Database of Systematic Reviews, CENTRAL, MEDLINE, CINAHL, Embase, PsychInfo, and, Social Science Citation Index combining topic specific terms and text words.

- 1 Accidental Falls/
- 2 (fall OR falls or faller\$1 or fallen).ti,ab.
- 3 1 or 2
- 4 exp Aged/
- 5 (senior\$1 or elder*or older or old or oldest).ti,ab.
- 6 4 OR 5
- 7 3 AND 6
- 8 (prevent* or reduce* or manage*).ti,ab.
- 9 7 AND 8
- 10 Program Evaluation/
- 11 Information Dissemination/
- 12 Barrier*.ti,ab.
- 13 evaluat*.ti,ab.
- 14 translat*.ti,ab.
- 15 feasibility.ti,ab.
- 16 integrat*.ti,ab.
- 17 implement*.ti,ab.

Falls Implementation review
FINAL PROTOCOL

18 disseminat*.ti,ab.

19 adopt*.ti,ab.

20 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19

21 9 AND 20

Criteria for inclusion and exclusion of studies in the review

Inclusion Criteria

1. Population – community-dwelling older adults (i.e., not in care homes or in hospital)
2. Intervention – the study evaluates the effects of implementation strategies for the prevention of falls in the community or examines the influences affecting the uptake or implementation of falls prevention interventions.
3. Outcome – included studies must contain some assessment or evaluation of implementation. This may include:
 - change of behaviour (clinicians)
 - economic indicators
 - patient outcomes i.e., hospital admission, QoL.
 - Barriers or facilitators to implementation
4. Study design – due to the nature of implementation evaluation studies, it is likely that a wide range of study designs will be reported, including both qualitative and quantitative methods. Existing relevant systematic reviews will also be identified.
5. Language restrictions – only studies reported in English will be included in this review. Eligible studies in other languages will be identified and brief details will be tabulated.
6. Date of publication – articles published between 1980 and April 2010 will be reviewed

Exclusion Criteria

1. Editorials, opinion papers, meeting abstracts papers

Falls Implementation review
FINAL PROTOCOL

Two reviewers will independently screen all titles and abstracts. Full paper manuscripts of any relevant titles/abstracts will be obtained where possible and the relevance of each study assessed according to the above criteria. Studies that do not fulfil the criteria will be excluded and their bibliographic details listed with the reason for exclusion. Any discrepancies will be resolved by consensus and if necessary a third reviewer will be consulted. This review will be developed using an iterative process and changes to the protocol will be detailed by amendment and authorised by the research team.

Data extraction

Data will be extracted from included papers independently by two reviewers. Any discrepancies will be discussed and will involve a third reviewer where necessary. Data extraction will include information regarding study design, components of the intervention, outcomes and measurement, study characteristics (e.g. location and setting of study, population), analysis and results.

Quality assessment

It is likely that a range of study designs will be used in the studies selected for inclusion, using qualitative and quantitative methods. This reflects the nature of studies of implementation, where it may not be feasible or appropriate to use a randomised controlled trial design. Therefore, the quality of individual studies will be assessed independently by two reviewers. Qualitative studies will be assessed according to Wallace ¹⁶ with quantitative studies assessed according to the Cochrane risk of bias tool ¹⁷. The results will be tabulated by individual reviewers for each study and compared. Disagreements will be resolved through consensus and if necessary a third reviewer will be consulted.

Data synthesis

Falls Implementation review
FINAL PROTOCOL

To determine whether effective methods of implementation are consistent across studies, data from quantitative studies will be summarised using evidence tables and synthesised using a narrative approach as follows:

1. Initially, tabulation of study type, intervention, implementation strategies, numbers of participants, summary of participant characteristics, outcomes, results and study quality.
2. Identify how implementation methods work, why and for whom.
3. Where data allow, identifying relationships and differences between studies based on factors such as HC system, professions involved, type of falls prevention intervention.

Reference List

- (1) Sambrook P, Cooper C. Osteoporosis. *The Lancet* 2006; 367(9527):2010-2018.
- (2) Chang JT, Morton SC, Rubenstein LZ, Mojica WA, Maglione M, Suttrop MJ et al. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomised clinical trials. *British Medical Journal* 2004; 328:680-686.
- (3) Gillespie LD, Robertson MC, Gillespie WJ, Lamb SE, Gates S, Cumming RG et al. Interventions for preventing falls in older people living in the community (Review). *Cochrane Database of Systematic Reviews* 2009;(2).
- (4) Sherrington C, Whitney JC, Lord SR, Herbert RD, Cumming RG, Close JCT. Effective exercise for the prevention of falls: a systematic review and meta-analysis. *Journal of the American Geriatrics Society* 2008; 56:2234-2243.
- (5) Barnett A, Smith B, Lord SR, Williams M, Baumand A. Community-based group exercise improves balance and reduces falls in at-risk older people: a randomised controlled trial. *Age Ageing* 2003; 32:407-414.
- (6) Campbell AJ, Robertson MC, Gardner MM, Norton RN, Tilyard MW, Buchner DM. Randomised controlled trial of a general practice programme of home based exercise to prevent falls in elderly women. *British Medical Journal* 1997; 315:1065-1069.

Falls Implementation review
FINAL PROTOCOL

- (7) Campbell AJ, Robertson MC, Gardner MM, Norton RN, Buchner DM. Falls prevention over 2 years: a randomised controlled trial in women aged 80 years and over. *Age Ageing* 1999; 28:513-518.
- (8) Close J, Ellis M, Hooper R, Glucksman E, Jackson S, Swift C. Prevention of falls in the elderly trial (PROFET): a randomised controlled trial. *The Lancet* 1999; 353:93-97.
- (9) Skelton D, Dinan S, Campbell M, Rutherford O. Tailored group exercise (Falls Management Exercise - FaME) reduces falls in community-dwelling older frequent fallers (an RCT). *Age Ageing* 2005; 34(6):636-639.
- (10) American Geriatrics Society and the British Geriatrics Society. Clinical practice guideline: Prevention of falls in older persons. *American Geriatrics Society* . 2010. 8-4-2010.
Ref Type: Report
- (11) National Institute for Health and Clinical Excellence. Falls: The assessment and prevention of falls in older people. CG21. 2004. London, Royal College of Nursing.
Ref Type: Report
- (12) Department of Health. Fracture prevention services: an economic evaluation. 2009. London, Department of Health.
Ref Type: Report
- (13) Goodwin V, Martin FC, Husk J, Lowe D, Grant R, Potter J. The national clinical audit of falls and bone health - secondary prevention of falls and fractures: a physiotherapy perspective. *Physiotherapy* 2010; 96(1):38-43.
- (14) Royal College of Physicians. National clinical audit of falls and bone health in older people. 2007. London, Royal College of Physicians.
Ref Type: Report
- (15) Roen K, Arai L, Roberts H, Popay J. Extending systematic reviews to include evidence on implementation: methodological work on a review of community-based initiatives to prevent injuries. *Social Science and Medicine* 2006; 63:1060-1071.
- (16) Wallace A, Croucher K, Quilgars D, Baldwin S. Meeting the challenge: developing systematic reviewing in social policy. *Policy and Politics* 2004; 32(4):455-470.
- (17) Higgins JPT, Green S. *Cochrane handbook for systematic reviews of interventions* Version 5.0.2. 2009. Chichester, UK, John Wiley and Sons Ltd.
Ref Type: Report