Review Article

Identifying the key characteristics of falls management programmes in UK care homes - A scoping review of grey literature

Katie R. Robinson[1,2], Adam L. Gordon[3], Pip A. Logan[2,4], Stephen Timmons[5], Meri Westlake[6], Alison Cowley[1,2]

[1]Research and Innovation, Nottingham University Hospitals NHS Trust, UK;
[2]Medical School, University of Nottingham, UK;
[3]Division of Medical Sciences and Graduate Entry Medicine, University of Nottingham, UK;
[4]Nottingham CityCare Partnership, UK;
[5]Centre for Health Innovation, Leadership & Learning, Nottingham University Business School, University of Nottingham, UK;
[6]Therapies, Clinical Support, Nottingham University Hospitals NHS Trust, UK

Abstract

Trial literature on falls management in care homes may provide limited detail on current practice and instead this information may be found in grey literature. This scoping review aimed to identify the key characteristics of current falls management programmes for UK care homes identified from the grey literature. A scoping review was conducted and evidence sources were included if they were targeted at UK care homes for older people and included any component of falls management (assessment, intervention, training). Search activities included searches of electronic databases, professional websites and contacting care homes for current examples. The principles of intervention component analysis were conducted to describe the features of falls management. Forty-eight evidence sources were included (17 online resources, 10 online articles, 9 policies and standards and 12 examples provided by individual care homes). 67 themes were identified under eight domains. The core domains detailed the characteristics of Assessment, Interventions and Training. The approach taken to managing falls was an overarching domain, with supporting domains including how to report and monitor falls, when to complete assessments and interventions, governance and accountability, and involvement of the wider healthcare system.

Keywords: Falls, Grey literature, Long-term care, Training

Introduction

Care home residents have complex needs and often experience poor mobility and high dependency[1]. As such they are at high risk of falling and fall three time more frequently than community-dwelling older people[2]. Falls in care home residents commonly result in fractures and hospitalisations[2].

The management of falls for older adults living in the community is well considered within published literature[3] with guidance recommending identification of those at risk of falling, identification of the potential risks identified and targeted interventions to reduce the risks[4]. For care home residents there is less robust evidence from trial literature[5] and guidance is often based on evidence taken from hospital and community settings without consideration of the different needs of care homes residents and the different context of this setting.

Search Activity		Number of evidence sources identified
Electronic databases of grey literature	ASSIA	512
	Social Care Online	901
	Open Grey	1
Internet search of search engines	Google	37
Search of relevant third sector websites	Age UK	527
	Care Quality Commission	4
Search of relevant professional websites	Chartered Society of Physiotherapy	277
	British Geriatrics Society	1
	Royal College of Occupational Therapists	54
	Academic Health Science Network	1
Request for information from relevant distribution lists	Enhanced Health in Care Homes Nottinghamshire	12
	Lincolnshire Care Group	No response

Table 1. Summary of search activity.

A Cochrane review of interventions to manage falls in care homes concluded that most evidence was of such poor quality that they were unable to identify the most effective falls management strategies for care home residents[6]. This gap in the evidence has been bridged, to some extent, by the results of the Falls in Care Homes (FiNCH) study[7] which showed that a multifactorial falls prevention intervention comprising awareness raising, education, screening, decision support and implementation was associated with a significant reduction in falls and was cost effective in a cohort of UK care homes for older people.

A major limitation of the FiNCH study – as with all randomised controlled trials – was that it carefully controlled the context for intervention implementation. In the real world, meanwhile, care homes and the healthcare sectors that provide care to them are defined by significant variability[8] that could challenge such systematic approaches to falls management approaches.

In order to prepare the care home sector for systematic approaches to falls prevention, it is necessary to understand the current spectrum of practice, and the extent to which this aligns to the evidence base or not. These types of data are largely not reported in academic literature, as the previous Cochrane review shows, but are much more likely to be represented in the grey literature. This comprises policy papers, service specifications and evaluations, and guidelines published either in paper or online and not captured in bibliographic databases. The accessibility of this type of literature means it is most likely to be read and used by health and social care staff. Reviewing the grey literature has provided useful insights

into the current practice of other aspects of resident care for example staffing and environment considerations in dementia care[9].

This scoping review therefore aimed to identify the key characteristics of current falls management programmes for care home residents in the UK identified from the grey literature.

Methods

This scoping review was conducted in accordance with the Joanna Briggs Institute (JBI) guidelines[10]. The protocol was registered on Open Science Framework prior to the work being conducted.

Review Question

The review question was developed in collaboration with healthcare professionals and care home managers. The question addressed by this review was:
What are the key components of falls management programmes currently delivered in UK care homes?
The review was designed to meet the following objectives:
1. Describe the type of evidence sources that address falls management (including assessment, interventions and training) in care homes.
2. Describe the key characteristics of current falls assessment approaches.
3. Describe the key characteristics of current falls intervention programmes.
4. Describe the key characteristics of current falls management training programmes.

Table 2. Online resources.

Title and Date	Organisation	Summary	Type of Evidence Source	Target Audience
Care about physical activity (2016)	Scottish Care Inspectorate	Range of resources to support older people to remain and increase activity including within care homes.	Online set of resources	Older people and people working with older people
Care homes and falls prevention (2021)	Torbay and South Devon NHS Foundation Trust	Information about a local falls trainings programmes and how to access	Online information	Care home and healthcare staff
Care Homes- medication and falls (2018)	PresQIPP- Community Interest Company	Factsheet on medication and falls	Online information	Care home staff
Falls best practice training and resources (2016)	Nottinghamshire County Council	Signposting to relevant falls related resources (such as NICE, Skills for Health)	Online signposting of resources	Care home staff
Falls prevention (2019)	Healthy London Partnership	Main article about chair yoga with links to falls assessments and posters from CCG	Online information	Care home staff
Falls toolkits (2015)	Essex County Council and North East Essex Clinical Commissioning Group	Falls folder with range of resources including safety cross, safety stick, falls checklist, tumbles 7 falls monitoring record.	Downloadable resources	Care home staff
Managing a fall that may require an ambulance during the COVID-19 pandemic (2020)	Developed by the National Falls Prevention Coordination Group	Advice on what to do regarding ambulance call outs during Covid	Poster available online to download	Care home staff
Managing falls and fractures in care homes for older people (2016)	Scottish Care Inspectorate	Good practice resource for care home staff outlining a quality improvement approach using PDSA to assess current falls approach and improvements. Background of importance of considering falls, risk factors, training resources and specific prevention and management tool resources.	Good practice handbook and resource	All care home staff
Managing falls and fractures in care homes for older people (2011)	NHS Scotland and Social Care and Social Work Improvement in Scotland	Original resource developed in 2011 outlining best practice resources for care homes. This has been updated in 2016	Good Practice Handbook and Resource	All care home staff
Managing falls and fractures in care homes for older people Falls Prevention and Management Resource Pack (2015)	Sutton and Merton Community Services	Resource pack for care homes for assessment and intervention with falls. Resource pack considered a training resource for care home staff	Online resource pack	Care home staff
Northern Ireland Nursing Home Regional Collaborative Falls Prevention Toolkit (2013)	Public Health Safety Forum	Online resource with toolkit including falls safety stick, resource leaflets and risk assessments.	Online resource and best practice	Care home staff
Preventing falls in care homes (2020)	Bristol City Council	Series of resources including PowerPoints presentations on expectation after a fall and links to other guidance such as the NICE Falls Guidelines	Online set of resources	Care professionals and residents
Quick Guide (2018)	AHPs into Action	Case studies to support enhanced health in care homes including falls components	Online quick guide	Allied Health Professionals
React to Falls (2018)	Collaboration of university and researchers	Series of videos on the risk factors and actions for falls, behaviour case study and resource booklet.	Online training resources	Care home staff and healthcare professionals
Reducing falls in care homes (2018)	Perth and Kincross Council	Recommendations from County Council for care homes in the management of falls. Recommendations based on the Managing falls and fractures in care homes for older people (2016)	Online information	Care home staff

Table 2. *(Cont. from previous page).*

Title and Date	Organisation	Summary	Type of Evidence Source	Target Audience
Up and About in care homes (2014)	NHS Education for Scotland	Website with resources about the Up and About in Care home programme of work. Includes newsletters, learning sessions and case studies. Guidance is based around the Managing falls and fractures in care homes for older people (2016	Online resource	Anyone working in a care home for older people
7 steps to falls prevention	Essex County Council and North East Essex Clinical Commissioning Group	falls prevention advice using TUMBLES acronym	Downloadable factsheet	Care home staff

Table 3. Online articles.

Title and Date	Organisation	Summary	Type of Evidence Source	Target Audience
A carer speaks out about what happens when residents fall (2017)	Mangar Health	View from a care home worker and the need to protect themselves when moving and handling	Online article	Care home staff
Falls in Care Homes: "Let's go and invent tomorrow, instead of worrying about what happened yesterday.... (2020)	BGS	Blog about research development of React to Falls App	Online blog	Researchers and healthcare professionals
Focus: Falling in the care home (2020)	Care to be Different	Advice for relatives and residents on care home responsibilities relating to falls and offers feedback for complaints	Online Article	Residents and relatives
Managing the risk of falls in care homes (2019)	Care docs	Best practice and advice article outlining 5 useful tips on managing the risk of falls	Care docs	Care home staff
Preventing falls in care homes (2013)		Short discussion on the importance of falls prevention in care homes	Journal discussion - non peer reviewed article	Researchers and healthcare professionals
Preventing falls in care settings (2015)	Quality Compliance Systems	Summary of work to develop the Managing falls and fractures in care homes for older people	Online article	Care home staff
Staying on my feet (2018)	My Home Life Cymru	Education programme of supporting activity to reduce risk	Online advert for education programme	Care home staff and residents
Tips on preventing falls in care homes (2017)	Care Home.co.uk	Tips on preventing falls in care homes. Short online article with links to on-going care home research (FinCH)	Online Article	Residents and relatives
Tips for Managing Falls in Care Homes	Yorkshire care equipment	Overview of falls management using the I STUMBLE approach if a resident falls. Focus on after a fall and the no lift policy	Online article	Care home staff
9 ways to help prevent slips, trips and falls in care homes (2019)	Croner-i	9 steps for care homes manager to consider in falls management	Online education	Care home managers

Search Strategy

The search strategy was developed to find evidence from grey literature as the information relating to the review question was most likely to be found in grey literature such as policy documents, online training resources and reports from care organisations. Grey literature for this review was defined as literature not subject to a peer review process and not under the control of commercial publishing organisations[11].

The search strategy included a broad range of search activities outlined below:

1. Electronic databases of grey literature (ASSIA, Open Grey, Social Care online and 'Up-to-date').
2. Internet search using search engines (e.g. Google).
3. Search of relevant third sector websites (e.g. Age UK, CQC).
4. Search of relevant professional websites (e.g. Chartered Society of Physiotherapy, British Geriatrics Society).
5. Request for information about falls management programmes from relevant distribution lists (e.g. Enhanced Health In Care Home Lead).

The search terms for the grey literature were deliberately broad and used the key words *'falls', 'falling', 'fall'*, 'slips', 'trips' and *'care homes', 'long-term care', 'residential care'* and *'nursing homes'*. These terms are commonly used within UK care home literature and by the care home and healthcare community[12].

Eligibility Criteria

The eligibility criteria was developed in line with the 'population-concept-context (PCC)' framework suggested by the Joanna Briggs Institute for scoping reviews[10]. Eligible evidence was included if it met the following criteria:

- Population: evidence targeted at UK care homes for older adults (65 years and over). The population was limited to the UK as the aim of the review was to describe the key components of falls management programmes in the UK to support future implementation acknowledging that practices and care home structures may be different across different countries.
- Concept: falls management programmes (any component of assessment, intervention and training)
- Context: all types of evidence sources published or updated from June 2013 onwards. This date was chosen as the National Institute of Health and Care Excellence (NICE) "Falls in older people: assessing risk and prevention" was last updated in June 2013[4].

Study Selection

Two authors (KR, AC) independently reviewed each evidence source against the eligibility criteria. The reviewers then met to discuss their decisions and resolve any disagreements.

Data Extraction and Synthesis

Data from the included literature was extracted using a standardised data extraction form which included details of the components of falls assessments, falls interventions and falls training. Using the principles of intervention component analysis, line-by-line coding of the written information was conducted to identify and categorise the described features of falls assessments, falls interventions and falls training. Intervention component analysis is usually a two stage process that is used to identify the key characteristics of interventions when they are similar, or differ only slightly, and helps to identify the characteristics of an optimum intervention[13]. This approach was adapted for use in this review to identify the key characteristics of falls management programmes, without consideration of effectiveness as this was not relevant to the research question and was unlikely to be covered within the grey literature.

Results

Table 1 outlines the search activities undertaken and the number of evidence sources identified from each activity.

Summary of included evidence sources

Forty-eight evidence sources were considered eligible for inclusion and underwent data extraction summarised in Seventeen evidence sources were considered resources for supporting falls management in care homes and included a booklets, videos, training presentations and newsletters (Table 2). Ten evidence sources were categorised as online articles outlining tips for falls prevention, research updates and advice for care home staff, residents and relatives (Table 3). Nine evidence sources were categorised as policies or standards which included individual care home policies, policies from care home chains and national guidelines for falls management for older people (Table 4). Twelve evidence sources were examples of falls management assessments and care plans provided by individual care homes.

Social care staff were the most common target audience of the materials. Authors of the materials included clinical and research experts in the field, care home providers, national guideline bodies (e.g. NICE), professional bodies (e.g. the Royal College of Occupational Therapists). The NICE guidance for falls prevention for older people was referenced most frequently with evidence sources claiming the information complied with this guidance.

Coding framework and development

Line by line coding of all the evidence sources identified 188 codes relating to falls assessments, falls intervention and falls training programmes. These codes were then grouped into 67 themes under 8 domains (summarised in Figure 1). The core domains detailed the characteristics of Assessment, Interventions and Training. The approach taken
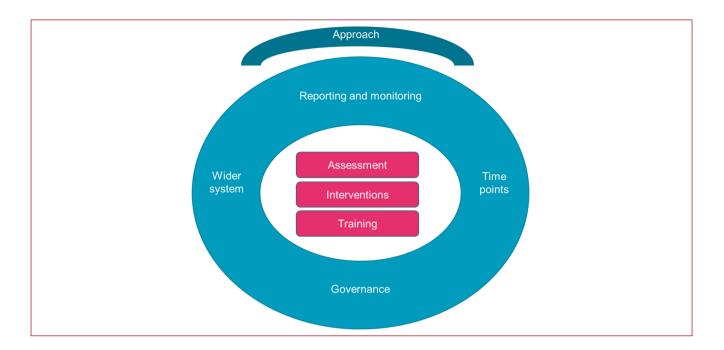
6nng

Figure 1. Domains of falls management.

care staff. The use of the word '*preventable*' was commonly used across evidence sources emphasising the importance of acting to prevent falls from happening. It was however acknowledged that although many falls are preventable it may not be possible to remove all risks and a more nuanced approach was evident that discussed the importance of considering individual resident needs as well as continuing to support mobility and independence.

2. Assessment

Across the grey literature core elements were identified of a multifactorial falls assessment. These were risk assessments including: anxiety and fear of falling, falls history, medical history, medication, mobility and balance, diet and nutrition, cognition, continence, footwear, vision and hearing and environment. The importance of linking risk assessment to management plans that removed or mitigated against risks was shown in the care home examples reviewed, for example linking a falls plan with moving and handling assessment. Who should be completing falls assessments was not clear across the literature with national guidance from NICE [summarised in Table 4] referring to specialist healthcare professionals completing falls assessments and other care home specific literature outlining the role of care home staff within components of assessment.

3. Intervention

Literature was consistent in suggesting that interventions should be multifactorial, individualised and targeted at identified risks. Proactively identifying risks and putting in interventions to reduce these risks were reported. These covered a range of areas including diet, nutrition, footwear, medication and activity. The importance of considering the wellbeing of residents was stressed across the literature. Supervision and observation of residents was referenced in a small number of evidence sources as well as the potential role of technology to support resident monitoring and alert staff of risks.

4. Training

Many of the evidence sources identified were primarily designed as training material for care home staff. Key themes included training of all staff to ensure falls awareness, using case studies to provide practical tips and examples, and that the role needed in falls management may be different for staff working in different roles across the home. Falls champions were referenced as roles in the home to highlight the importance of falls and their potential impact. The role of residents and families and the provision of information targeted at residents and families was identified.

5. Time Points

A recurrent theme was that falls assessment should be continuous, rather than restricted to particular points in the patient journey. However periods of increased vigilance and activity were required at times of high risk, for example on admission to the care home, after a fall and after a hospital admission.

6. Involvement of Wider Health and Social Care System

The importance of involving the wider health system in supporting the care home in falls management was a

consistent theme. Referring to appropriate services and professionals when required, was detailed in care home policy and training documents. For example, in the React to Falls training video and booklet [summarised in Table 2] it was suggested that support be sought when a care home had concerns which might include a medical review by a GP, nurse specialist or pharmacist.

7. Reporting and Monitoring

Key to the reporting of falls were: the need for a shared and agreed definition of a fall; care home staff being alert to it being a shared responsibility for them to report a fall as quickly as possible; and the establishment of a no blame culture with an ethos of quality improvement to encourage transparent reporting of falls. Important attributes of care home policies related to having a clear post-falls protocol, including clear criteria on when to call an ambulance.

8. Governance

Litigation, legislation and negligence emerged as key themes relating to the governance of falls. Care home policies on falls included the responsibilities of staff in managing and recording falls. Having adequate staffing levels with appropriate skills mix was needed to ensure falls could be managed appropriately. For example the Falls and Fracture resource developed by the Care Inspectorate [summarised in Table 2] reported the increased risk of falling at night with lower staffing levels and the importance of having the right number of staff with appropriate knowledge and awareness of falls management. A case study was provided on a review of staffing levels around particular activities (such as mealtimes) where a higher number of falls had been reported.

Discussion

This scoping review of the grey literature has identified the key characteristics of falls management programmes including assessment, intervention and training, for care homes in the UK. Eight domains relating to falls management were identified: the overall approach, assessment, intervention, training, time-points, governance, reporting and monitoring and including the wider healthcare system. Areas of disagreement across the literature included whether or not all falls can be considered preventable and whether or not assessments need to be completed by a healthcare professional with specialist skills and knowledge.

Strength and limitations

This is a scoping review of the grey literature and therefore the findings and conclusions need to be considered in the context of the type of information included and synthesised in this review. The findings have been drawn from the literature identified from the search activities undertaken at a specific time point and may not reflect what is actually happening in the management of falls in care homes. Comment also cannot be made on the effectiveness

of the key characteristics from this type of literature or the quality of the literature. Never the less this approach was taken to identify information targeted and accessed by care homes in relation to falls management which was the aim of the review. The rapid access and development of the grey literature may reflect more closely the current practices in care homes.

The review was conducted in line with recognised methodological guidance for scoping reviews with a pre-defined protocol, two reviewers assessing evidence sources and a transparent approach to analysis.

Context

The importance of considering individual resident needs and preferences was identified across the evidence sources in this review and this resident-centred approach is widely advocated across all aspects of care. Supporting this approach in practice can however be challenging, balancing needs and preferences with managing potential falls risks in the context of a care home environment. For example supporting the needs of a resident to be active outside of the care home may require additional staffing resources and if not available this activity may not be undertaken[14].

One of the key characteristics of falls assessments and interventions was the multifactorial approach with tailored interventions based on the identified risks. This is in line with the current NICE guidelines[4] and may account for the consistency of this approach across the evidence sources. This guidance is however currently under review with new evidence suggesting that offering all falls interventions rather than only those related to the individual identified risk may be more effective[6]. This evidence is however based on research with community-dwelling older people and may not directly apply to the care home context and needs of care home residents.

Falls were considered an emotive subject in this review with the anxiety and worry of care home staff reported. The narrative around all falls being preventable potentially exacerbates the guilt of staff when a resident in their care falls and the well-being of care staff also needs to be considered. Terminology and language in the area of falls management may need to be carefully considered as if all falls are considered preventable this may lead to a lack of reporting and learning as well as impacting on resident liberty and independence.

This findings from this review present a picture of usual care for falls management in UK. The explosion of grey literature and access to online resources may reflect how care homes access information to support the delivery of care in their homes. The evidence sources in this review were freely accessible through internet and social media searches and are likely to be the resources reviewed by care homes. The peer-reviewed evidence underpinning these resources is limited and although the NICE guidance for falls prevention was frequently referenced this guidance has

limited detail specific to care home residents. The reliance on grey literature may reflect the limited research capacity within care homes with these settings not benefitting from the same research training and development opportunities offered to other healthcare settings. A greater focus on care home research has been acknowledged through initiatives such as the Enabling Research in Care Homes (EnRiCH) and the importance of working in collaboration with care home staff highlighted.

The contextual issues and challenges raised by this scoping review identify key considerations for the future implementation of falls management for care home residents. The contextual issues identified here align to established implementation frameworks such as the Consolidated Framework for Implementation Research which acknowledge key factors that influence the implementation of interventions[15]. For example the CFIR identifies five domains that can influence implementation which include the individual involved, the process of implementation, the characteristics of the intervention and the inner and outer settings. The contextual detail provided by this scoping review enables a greater understanding of the factors influencing the successful implementation of falls management in care homes. Implementation will need to consider the ethos and culture of the care home and consider the impact not only on the care homes, but on NHS services that interface with them, including ambulance services that might be called. Finally it will have to reconcile the tension between specialist versus care home staff assessment, and find a way to convey sophisticated nuances about risk management – that balance the risks of more aggressive approaches to falls assessment against their potential harms.

Research Recommendations

Key characteristics have been identified in this review however there is a need to explore models of how to implement falls management consistently in care homes. Challenges with taking actions to reduce risks have been demonstrated and ways of working are needed where care staff are supported to feel confident to take these actions[16]. Further work is needed on the areas of disagreement across the evidence sources which include whether all falls are considered preventable and the specialist skills needed to carry out a falls assessment.

Further support for care home staff in the development the research awareness and understanding is needed to ensure the sector can benefit from rigorous research that is meaningful to residents, families and care home staff.

Conclusions

Falls management for care homes in the UK is considered in a range of evidence sources including local training programmes, national guidance and specific care home policies. The contextual detail provided by this scoping review enables a greater understanding of the factors influencing the successful implementation of falls management in care homes.

References

1. Gordon AL, Franklin M, Bradshaw L, Logan P, Elliott R, Gladman JRF. Health status of UK care home residents: a cohort study. Age Ageing 2014;43(1):97−103.
2. Department of Health. Falls and Fractures: effective interventions in health and social care.le [Internet]. 2009. Available from: http://www.laterlifetraining.co.uk/wp-content/uploads/2011/12/FF_Effective-Interventions-in-health-and-social-care.pdf - Accessed 05/01/22
3. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, et al. Interventions for preventing falls in older people living in the community. Cochrane database Syst Rev 2012;(9):CD007146−CD007146.
4. NICE. Falls in older people: assessing risk and prevention [Internet]. 2013. Available from: https://www.nice.org.uk/guidance/cg161/resources/falls-in-older-people-assessing-risk-and-prevention-pdf-35109686728645.
5. Cameron ID, Dyer SM, Panagoda CE, Murray GR, Hill KD, Cumming RG, Kerse N. Interventions for preventing falls in older people in care facilities and hospitals. Cochrane Database Syst Rev 2018;9(9):CD005465.
6. Hopewell S, Adedire O, Copsey BJ, Boniface GJ, Sherrington C, Clemson L, Close JC, Lamb SE. Multifactorial and multiple component interventions for preventing falls in older people living in the community. Cochrane Database Syst Rev 2018;7(7):CD012221
7. Logan PA, Horne JC, Gladman JRF, Gordon AL, Sach T, Clark A, et al. Multifactorial falls prevention programme compared with usual care in UK care homes for older people: multicentre cluster randomised controlled trial with economic evaluation. BMJ 2021;375:e066991.
8. Devi R, Martin G, Banerjee J, Butler L, Pattison T, Cruickshank L, et al. Improving the Quality of Care in Care Homes Using the Quality Improvement Collaborative Approach: Lessons Learnt from Six Projects Conducted in the UK and The Netherlands. International Journal of Environmental Research and Public Health 2020;17(20): 7601.
9. Seetharaman K, Chaudhury H, Kary M, Stewart J, Lindsay B, Hudson M. Best Practices in Dementia Care: A Review of the Grey Literature on Guidelines for Staffing and Physical Environment in Long-Term Care. Can J Aging / La Rev Can du Vieil 2020;1−16.
10. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil H. hapter 11: Scoping Reviews (2020 version). In: Aromataris E, Munn

Z (Editors). JBI Man Evid Synth JBI 2020.

11. Adams J, Hillier-Brown FC, Moore HJ, Lake AA, Araujo-Soares V, White M, et al. Searching and synthesising 'grey literature' and 'grey information' in public health: critical reflections on three case studies. Syst Rev 2016;5(1):164.

12. Burton JK, Quinn TJ, Gordon AL, MacLullich AMJ, Reynish EL, Shenkin SD. Identifying published studies of care home research: an international survey of researchers. J Nurs Home Res Sci 2017; 3:99-102.

13. Sutcliffe K, Thomas J, Stokes G, Hinds K, Bangpan M. Intervention Component Analysis (ICA): a pragmatic approach for identifying the critical features of complex interventions. Syst Rev 2015;4(1):140.

14. College of Occupational Therapists Conference Book of Abstracts 2016. Br J Occup Ther [Internet] 2016;79(8_suppl):1–139.

15. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implement Sci 2009;4(1):50.

16. Robertson K, Logan P, Ward M, Pollard J, Gordon A, Williams W, et al. Thinking falls – taking action: a falls prevention tool for care homes. Br J Community Nurs 2012;17(5):206–9.