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REVIEW ARTICLE

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Supporting implementation of occupational therapy led Falls Hazard Reduction at Home: A scoping review

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Abstract

Introduction: Accidental falls among older people pose a significant threat to both morbidity and mortality. Falls Hazard Reduction at Home (FHR@Home) when delivered by occupational therapists has been demonstrated as an effective fall prevention intervention. Despite the evidence, FHR@Home is not routinely implemented in practice. This scoping review seeks to explore existing literature to support implementation of FHR@Home by answering the question: 'What is known about implementation strategies used to support home and community environmental falls prevention intervention in health care?'

Methods: This review used the Joanna Briggs Institute (JBI) methodological guidance for the conduct of scoping reviews. A comprehensive search was conducted across electronic databases, government websites, and web-based search engines. Studies were included if they incorporated FHR@Home as part of their intervention and explicitly referenced implementation science or knowledge translation concepts. Data were extracted from the included studies and reported implementation strategies were mapped using the Expert Recommendations for Implementing Change (ERIC) taxonomy and their associated clusters. A separate thematic analysis process was also conducted.

Consumer and Community Involvement: There was no consumer and community involvement.

Results: Nineteen studies met the inclusion criteria. All ERIC implementation strategy clusters are reported on in the studies. Strategies relating to engagement and education of stakeholders appear more often in the literature. Three themes were identified as having influence on implementation outcomes: (1) Home as a practice context; (2) Collaboration is key to success; and (3) Balance of assumed knowledge, experience and fidelity.

Conclusion: The findings underscore the need for further research to explore how implementation strategies can better support occupational therapists in delivering FHR@Home, particularly in ways that respect the consumer's sense of home while maintaining fidelity to evidence-based protocols. Expanding the

literature in this area will be beneficial to improve uptake and sustainability of FHR@Home practices.

PLAIN LANGUAGE SUMMARY

For older people, falls can lead to serious injury and possible long-term disability. Occupational therapists can help to prevent falls by working with older people in their homes to find and reduce falls hazards in a structured way. We call this Falls Hazard Reduction at Home or FHR@Home. Even though research shows FHR@Home works well, it is not always used in health care. We wanted to understand what helps support health services to use FHR@Home more regularly. To do this, we looked at research that included FHR@Home as part of falls prevention programs and that mentioned ideas from implementation science (a field that studies the ways we can support the use of good ideas in practice). We found 19 studies. Many of them focused on educating health workers and older people, as well as working closely with other people involved in falls prevention. We also found three important themes that affect the way we put FHR@Home into practice: (1) being in people's homes matters because it is not clinical, it is personal; (2) working closely with older people and other services is key to success; and (3) occupational therapists need to balance FHR@Home theory and their own knowledge and assumptions to get good outcomes. We suggest more research is needed to help health services use FHR@Home more often. Future work should focus on how to support older people's sense of home while making sure therapists follow best practices.

KEYWORDS

community setting, Falls Hazard Reduction at Home, falls prevention, implementation science, scoping review

1 | INTRODUCTION

Accidental falls in older adults are costly and prevalent (Australian Institute of Health Welfare, 2022; Salari et al., 2022). They are one of the leading causes of injury and death for adults over the age of 65 (Salari et al., 2022). With the population of older adults increasing, health care costs will increase significantly in the next 20 years (Australian and New Zealand Falls Prevention Society, ANZFPS, 2022). As such, prevention of falls is a worldwide health care priority (ANZFPS, 2022).

Falls prevention is complex due to the many factors that contribute to falls risks. One of the leading causes of falls for community-dwelling older people are hazards in the home, such as slippery flooring, a lack of handrails, and rushing (Pighills et al., 2011). As such, the World Guidelines for Falls Prevention and Management for Older Adults recommends reduction of falls hazards in the home environment as part of comprehensive multifactorial assessment and intervention (Montero-Odasso et al., 2022).

Falls Hazard Reduction at Home (FHR@Home) is a systematic approach to understanding hazards within a home environment (Pighills et al., 2011). A conceptual framework for occupational therapy falls prevention home visits exists to scaffold the assessment and intervention process for reducing environmental and behavioural fall risks (Keglovits et al., 2020). A comprehensive FHR@Home intervention involves (a) a thorough process to understand the older person through their falls risk factors, falls history, and environmental context; (b) the

Key Points for Occupational Therapy

- Standardised Falls Hazard Reduction at Home is effective but under implemented.
- Context of home supports feelings of consumer control but can compromise fidelity to standardised falls intervention.
- Standardised Falls Hazard Reduction at Home may be compromised by contextual influences and clinician assumed knowledge.

use of a validated assessment tool to support a systematic approach; (c) evaluation of the home environment and the way in which the older person pursues and completes occupation in their home environment including physical capacity, behaviour, functional vision, and daily habits; (d) co-creation approach between the clinician and the older adult to collaboratively develop an action plan targeting identified fall risks; and (e) provision of appropriate follow-up and professional support to ensure implementation and sustainability of recommended adaptations and modifications (Clemson et al., 2008; Clemson et al., 2023; Keglovits et al., 2020). When provided by occupational therapists to older people at high risk, FHR@Home can lead to an estimated 38% decrease in falls (Clemson et al., 2023). The involvement of occupational therapists in FHR@Home is further endorsed by the World Guidelines for Falls Prevention and Management for Older Adults (Montero-Odasso et al., 2022) and as part of the updated Australian best practice guidelines for preventing falls in community care (Australian Commission on Safety and Quality in Health Care, 2025).

Despite this evidence, targeted FHR@Home is not routinely implemented in contemporary occupational therapy practice (Pighills et al., 2019). It has previously been recognised that implementing falls prevention practice is challenging due the need to change clinical practice, organisations, and systems (Fixsen et al., 2011). Recent scoping (van Scherpenseel et al., 2023) and systematic (Vandervelde et al., 2024) reviews noted multiple determinants that may act as barriers to implementation of falls prevention initiatives in the community. These include time constraints, financial limitations, availability of necessary resources, fitting the intervention into current practice, communication, team and referral processes, and financial (dis)incentives. Additionally, van Scherpenseel et al. (2023) reported that broad cross-sector collaboration is required to support implementation, particularly for multifactorial falls prevention initiatives.

An additional challenge associated with the implementation of community-based assessment and intervention for falls lies in the fact that little is known about the implementation strategies used to support uptake. In their systematic review, Vandervelde et al. (2023) synthesised strategies used to implement multifactorial interventions, which are often targeted to the consumer and/or healthcare professional. They noted gaps in the use of implementation frameworks, models, and theories.

Although these reviews focus on the implementation of multidisciplinary, multifactorial falls prevention activities, FHR@Home is often, but not consistently, included as one of the components of the intervention (Hopewell et al., 2018). Knowledge is required to understand how to support implementation of occupational therapist led FHR@Home, either in uni-disciplinary or multidisciplinary teams. This review was undertaken to summarise the implementation processes used, and the lessons learned, by healthcare professionals and health services when implementing falls hazard reduction at home. A scoping review methodology was used to identify and analyse the existing evidence, and to map knowledge gaps in the literature, in order to inform future implementation efforts (Munn et al., 2018). To assist with this, the following overarching scoping review question and associated subquestions were developed:

What is known about implementation strategies used to support home and community environmental falls prevention intervention in health care?

1. What knowledge translation models, theories and frameworks have been used for falls prevention intervention by researchers across healthcare settings?
2. What are the learnings related to specifically to occupational therapy practice in FHR@Home?

2 | METHODS

2.1 | Positionality statement

Authors 1 and 3 of this scoping review identify as White, cisgender, heterosexual women, and Author 2 identifies as a White, cisgender, heterosexual man. All authors are occupational therapists with varying levels of engagement in fall prevention intervention. We share a deep understanding of, and empathy for, the personal impact of falls, some of which stems from lived experience as family members of individuals affected by falls. Author 1 is a doctor of philosophy candidate with clinical and higher education teaching experience in falls intervention. Author 2 is a senior academic with a background in acute care occupational therapy. Author 3 brings decades of experience in clinical practice and research focused on falls prevention. As occupational therapy clinicians, educators, and researchers, we seek to address the research–practice gap in this field, which has shaped the scope of this review.

2.2 | Research design

We used the Joanna Briggs Institute (JBI) methodological guidance for the conduct of scoping reviews (Peters et al., 2020), based on the methodological framework proposed by Arksey and O'Malley (2005), to ensure that a systematic approach was taken to the design, conduct, and analysis of this review. In accordance with JBI

methodological guidance, this scoping review aimed to map and summarise the existing evidence without undertaking a formal appraisal of the quality of included studies (Peters et al., 2020). The Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) provided scaffolding for reporting this review (Tricco et al., 2018).

2.3 | Protocol and registration

This review has not been registered nor is there a published protocol.

2.4 | Eligibility criteria

Table 1 provides an overview of the inclusion and exclusion criteria used for this review. These criteria were developed and applied to ensure contemporary relevance and community-based focus of the overall synthesis. A time limit of literature was placed from the year 2000 onwards, as there was a significant increase in funding allocated to knowledge translation (KT) and implementation science (IS) leading to an upsurge in dedicated publications in these areas of study after this time (Nilsen, 2024a).

2.5 | Information sources

We searched the CINAHL, Medline, Emcare, JBI, and Scopus databases, using MESH terms and keywords and government websites. We used DuckDuckGo and Google to search the grey literature, with the first 100 results from each of these two search engines reviewed. In addition, we completed a manual search of the citated and citing references of the included articles.

2.6 | Search strategy

The search strategy centred around three distinct concepts—community and home; implementation; and falls prevention practice. Table 2 outlines an example of how these concepts were searched and combined. Limitations were applied after the searches.

2.7 | Selection of sources of evidence

All articles identified in the database searches were imported into Endnote™ 21, and duplicates removed via the 'find duplicates' command and manual searching. The lead author completed a screen of titles and abstracts, in consultation with the team, identifying articles for full text review based on the eligibility criteria. A full text review was completed focusing on inclusion of FHR@Home and the focus on KT/IS theory, frameworks, or concepts.

A similar process was used for a grey literature and citation/reference searching. The PRISMA 2020 Flow Diagram provides detail of this process (Figure 1).

2.8 | Data charting process

Data extraction was completed by the first author, in consultation with co-authors. A data-charting form was created to determine which variables to extract. Results were discussed regularly throughout the process. The team iteratively updated the data-charting form.

2.9 | Data items

We extracted data on article characteristics (including country of origin and aim of the study), study design

TABLE 1 Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
• Community-based, health professional led falls prevention practices as the primary focus of the article/study • Falls Hazard Reduction at Home (FHR@Home) included as a component of the intervention • Participants including any healthcare professionals and/or public health professionals. Consumers opinion only where they provide opinions/feedback on the implementation process. • Knowledge translation and/or implementation science theory/approach/concept clearly stated • All methodological design including grey literature and opinion pieces • Title and abstract in English • Literature published from 2000 onwards	• Articles not related to falls prevention interventions • Articles with a focus on pharmacological approaches, efficacy of intervention and/or paediatric falls. ◦ paediatric fall • Intervention focused on restricted falls prevention practices (e.g., exercise, education, or balance only) • Falls prevention in hospital or nursing home • Articles focusing on students and student-led services

TABLE 2 Medline search strategy.

Concept	Search terms
Community or home	exp environment design/OR exp home environment/OR Independent Living/OR home OR hous* ADJ3 (environ* OR condition* OR social OR call*) OR 'community dwell*' OR 'Independent living' OR communit* OR home*
AND	
Implementation	exp 'diffusion of innovation'/OR Program Evaluation/ OR Translational Science, Biomedical/OR Information Dissemination/OR evidence-based practice/or evidence-based medicine/OR evidence-based nursing/OR program* ADJ3 (appropriate* OR effect* OR evalu* OR sustainabilit* OR adopt* OR implementat* OR diffus* OR disseminat*) OR innovat* ADJ3 (appropriate* OR effect* OR evalu* OR sustainabilit* OR adopt* OR implementat* OR diffus* OR disseminat*) OR program* ADJ3 (descript* OR develop*) OR implementation ADJ3 (strateg* OR method* OR facilitat* or scienc*)
AND	
Falls prevention	exp Accidental Falls/OR fall* ADJ3 (patient* OR accident* OR prevent*) OR faller* OR slip

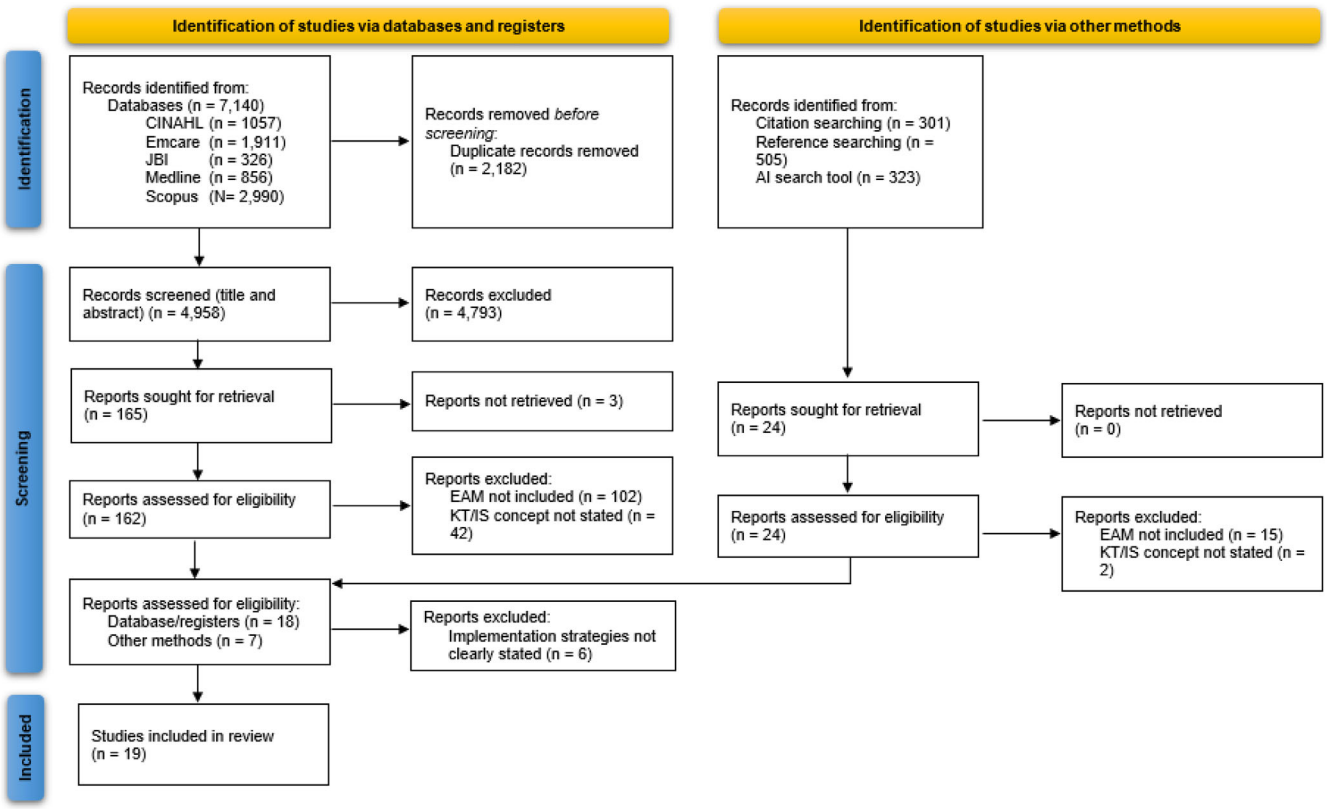

FIGURE 1 PRISMA 2020 flow diagram.

(including stage in implementation process, methodology, data collection methods, and participants), contextual information, and KT/IS concept. The implementation science concept was further categorised using a taxonomy of theories, models, and frameworks described by (Nilsen, 2024b). Implementation strategies were charted by identifying key words and/or phrases from the methods, results, and discussion sections of included papers.

2.10 | Synthesis of results

A deductive qualitative content analysis (Pollock et al., 2023) was completed to classify and visually represent the implementation strategies of each paper using the Expert Recommendations for Implementing Change (ERIC) taxonomy and their assigned clusters as described in Waltz et al. (2015). Figure 2 outlines the ERIC taxonomy, organised into clusters. The 'go-zone' quadrants of

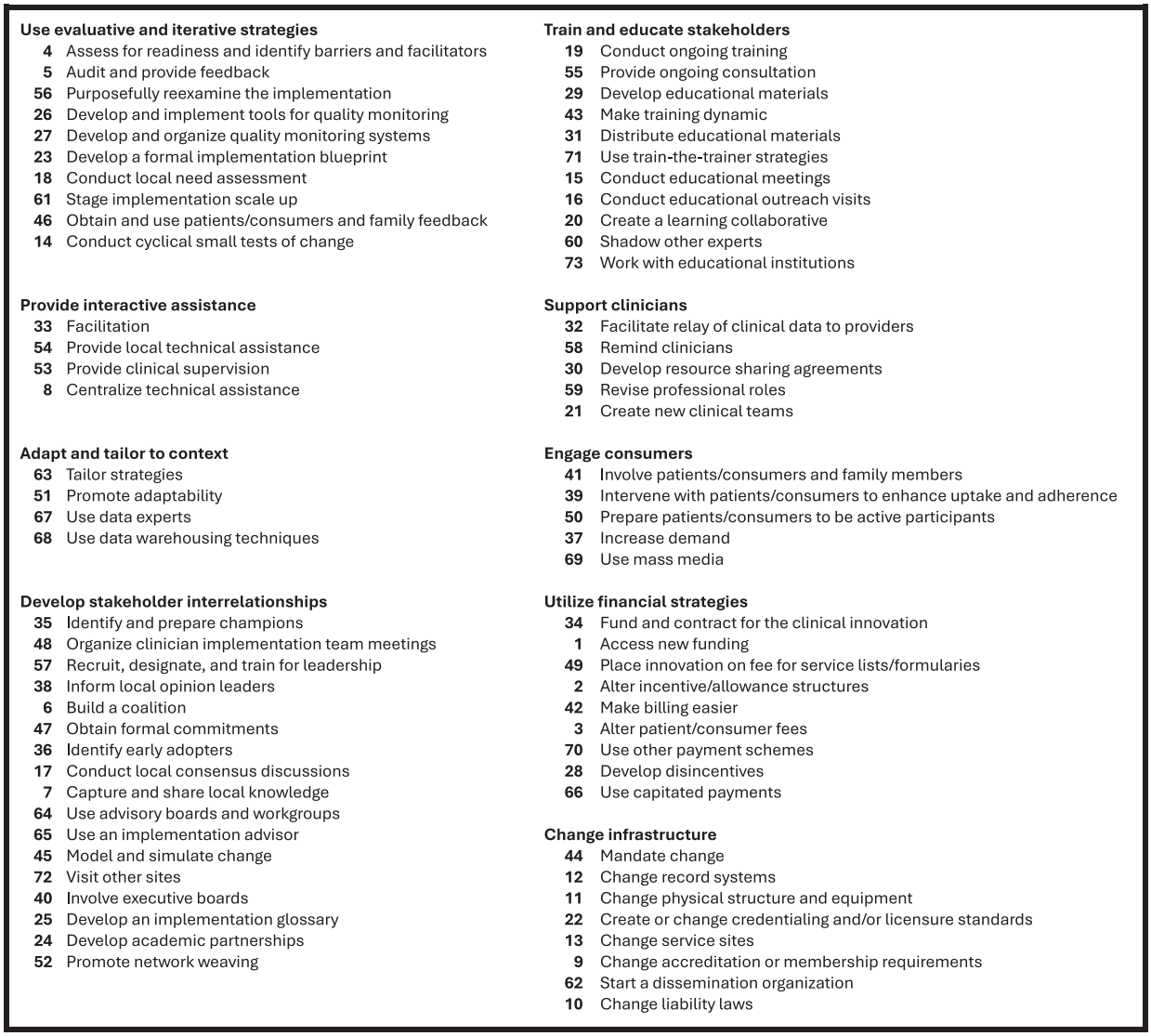

FIGURE 2 Summary of the Expert Recommendations for Implementing Change (ERIC) implementation strategies, organised by cluster (Waltz et al., 2015).

the implementation strategies, describing their relative importance and feasibility (Waltz et al., 2015), were also incorporated into the visual representation.

A separate inductive thematic analysis of each paper was completed, using the process recommended by Pollock et al. (2023). Consensus open coding was completed by all authors for a sample of papers ($n = 3$) to create a coding framework. The remaining papers were then coded by the first author using NVivo software, to assist with organisation of data. Final categorisation was agreed upon by all authors. Data were presented in their final themes.

3 | RESULTS

3.1 | Selection of sources of evidence

The PRISMA 2020 Flow Diagram details this process (Figure 1). Further review of included articles revealed that a portion did not outline the implementation strategies in sufficient detail to extract, despite reference to the use of knowledge translation and/or implementation science. A further inclusion criterion, 'implementation strategies clearly stated', was added at this point, and 19 reviewed articles met this criterion.

TABLE 3 Descriptive data of the included studies.

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
1	Baker et al. (2005) United States of America (USA)	Outline the dissemination (including the barriers/facilitators and strategies) of best practice guidance into clinical practice as described by provider working groups.	Post-dissemination mixed method evaluation of penetration (count of health services using guidance) and barriers/facilitators and strategies (semi-structured group interview with thematic analysis derived from constant comparative method & consensus)	Penetration sites ($n = 375$) Group interview: Working group meetings for first 2 years ($n =$ not reported)	Multiple sites within health care district including hospitals, home care agencies, primary care providers, & outpatient rehabilitation facilities (rural, regional, metropolitan)	Connecticut Collaboration for Fall Prevention (CCFP) Fall risk-assessment &-management strategy	MC falls assessment and intervention-FHR@Home part of strategy	Diffusion of Innovation Theory Transtheoretical Model of Health Behaviour Change Social learning/ cognitive theory	Classic Theory Classic Theory Classic Theory
2	Bjerk et al. (2024) Norway	Outline the methods of implementing and evaluating national recommendations for fall prevention.	Pre-implementation study protocol for quantitative national implementation project	RCT study protocol	National project targeting community health services	FALLPREVENT	MF falls assessment and intervention-FHR@Home for high-risk clients	KTA CFIR ERIC	Process Model Determinant Framework Implementation Strategy Taxonomy
3	Clemson et al. (2014) Australia	Explore implementation of an evidence-based home safety fall prevention intervention.	Postimplementation qualitative review of 2 services as part of a statewide funding initiative Thematic and content analysis informed by Diffusion of Innovation theory	Group interview: Occupational therapists ($n = 6$) Individual interview: Occupational therapists ($n = 2$); Managers ($n = 4$)	Two local community agencies delivering community health services (metropolitan)	Westmead Home Safety Assessment (WeSHA) Falls Behavioural Scale for Older People	Occupational Therapy led FHR@Home	RE-AIM Framework Diffusion of Innovations Theory	Evaluation Framework Classic Theory
4	Dorresteijn et al. (2013) The Netherlands	Assess the acceptability, feasibility, enablers and	Post-implementation descriptive mixed methods study-	Questionnaire: Nurses ($n = 8$); Participants ($n = 194$)	New service to three communities run by	A Matter of Balance-Home (AMB-Home) based on A	Nurse led FHR@Home	Process Evaluation	Evaluation Framework

(Continues)

TABLE 3 (Continued)

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
		barriers to implementation in trial sites to inform large-scale implementation.	quantitative & qualitative data were gathered alongside a two-group RCT	Individual interview: Participants who withdrew ($n = 77$) Group interview: Nurses ($n = 8$)	community nurses (regional & metropolitan)	Matter of Balance-Dutch version (AMB-NL)			
5	Dykeman et al. (2018) Canada	Describe the perceived barriers to and effective strategies for the implementation of evidence-based fall prevention practices across diverse community organisations.	Public Health approach qualitative descriptive design Purposive sampling used to include information rich data sources	Semi-structured Interview ($n = 30$) Group Interview ($n = 54$) Participants: Health care; retail; community support; volunteer services; community foundations; recreation centres; emergency services	Three different public health units to represent diversity in geography and socioeconomics (rural, regional, metropolitan)	N/a	Evidence based falls prevention practice – no specific intervention	Aligned with the core implementation concepts from Active Implementation Framework	Determinant Framework
6	Fernandez et al. (2024) Spain	Increase compliance with evidence-based recommendations regarding fall risk screening and preventive interventions among older people in a primary health care setting.	Pre- and post-implementation quantitative clinical audit based on the JBI Evidence implementation Framework Audit criteria derived from JBI evidence summaries	Patient records ($n = 62$) Questionnaire: Nurses ($n = 14$)	One primary health care district part of the public health system (metropolitan hub with two rural peripheral centres)	Spanish NHS Consensus Document About Frailty and Fall Prevention in Elderly People	MF falls assessment and intervention-FHR@Home for high-risk clients	JBI Evidence Implementation Framework	Process Model
7	Fortinsky et al. (2008) USA	nderstand the diffusion of evidence-based fall prevention practices among health care professionals within health	Post-implementation quantitative review of practice change via self-administered questionnaire	Surveys: Nurses ($n = 124$) & Rehabilitation therapists ($n = 60$) across 19 health agencies	19 home health agencies providing care for older persons (rural, regional, metropolitan)	Connecticut Collaboration for Fall Prevention (CCFP) fall risk-assessment and -management strategy	MC falls assessment and intervention-FHR@Home part of intervention	Diffusion of Innovation Theory Transtheoretical Model of Health Behaviour Change	Classic Theory Classic Theory

TABLE 3 (Continued)

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
		services that had received falls prevention training.	Answers aggregated to yield agency averages						
8	Kittipimpanon et al. (2012) Thailand	Develop and evaluate the effectiveness of a "Community-based Fall Prevention Program for Elderly Thais" living in urban Bangkok	Pre- & post-implementation mixed method process using an action research design. Qualitative data evaluated by content analysis; Quantitative data examined by paired t-test, Wilcoxon Signed Rank Test or descriptive statistics	Demographic questionnaire, Pre & post assessment: Elders ($n = 41$) Focus groups: community stakeholders ($n = 18$); elders ($n = 10$)	One inner city community (metropolitan)	Community-based Fall Prevention Program for Elderly Thais	MF falls assessment and intervention-FHR@Home for home and community	PRECEDE-PROCEED model	Determinant Framework
9	Kramer et al. (2011) USA	Evaluate how community and senior centres adopt and adapt new educational programs.	Post-implementation qualitative utilisation-focused process evaluation at six sites-including participatory development of logic model, failure analysis & focus group	Logic model completion: Centre directors ($n = 6$) Failure analysis: Centre directors ($n = 6$) Group interview: Centre directors & administrator ($n = 7$)	Six pilot sites consisting of community and senior centres (metropolitan)	Increasing Stability Through Evaluation and Practice (InSTEP)	MF falls assessment and intervention-Occupational therapy or social work led FHR@Home included in 4 pilot sites	Process evaluation	Evaluation Framework
10	Linnerud et al. (2023) Norway	Develop a co-create implementation strategy for fall prevention in Norwegian home care services.	Pre-implementation multi-method qualitative co-creation process for national implementation project	Workshop: HP & Managers ($n = 30$) Group Interview ($n =$ not reported) Individual interview: HP ($n = 3$); Managers ($n = 1$)	Two city district Home Care Services (metropolitan)	FALLPREVENT	MF falls assessment and intervention-FHR@Home for high-risk clients	CFIR	Determinant Framework

(Continues)

TABLE 3 (Continued)

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
			5 step process-workshops (1, 2, & 5), focus group interviews (3), & individual interviews (4)						
11	Linnerud et al. (2024) Norway	Evaluate the feasibility of a co-create implementation strategy in homecare services.	Pre-implementation embedded mixed method single armed feasibility study to test implementation plan for national project	Feasibility of Intervention Measure ($n = 8$) Group interview: Implementation team members ($n = 12$); Managers ($n = 2$); staff members ($n = 5$)	Two city district Home Care Services (metropolitan)	FALLPREVENT	MF falls assessment and intervention-FHR@Home for high-risk clients	CFIR NPT	Determinant Framework Implementation Theory
12	Mackenzie et al. (2020) Australia	Evaluate how intervention worked in pilot study for primary care providers and consumers.	Post-implementation qualitative descriptive pilot study using semi-structured interview analysed using reflexive thematic analysis	Interviews ($n = 16$) • GPs ($n = 2$) • AHPs ($n = 6$) • Older people ($n = 8$)	2 Primary care (GP) practices Local private occupational therapy and physiotherapy practices (metropolitan & semi-rural)	Westmead Home Safety Assessment (WeSHA) Otago exercise program	Occupational therapy led FHR@Home Physiotherapy led exercise program	Process Evaluation NPT	Evaluation Framework Implementation Theory
13	Pighills et al. (2019) Australia	Understand the barriers and enablers for FHR@Home adoption within regional and rural health services.	Pre-implementation concurrent mixed method study guided by elements of the i-PARIHS	Survey: occupational therapists ($n = 15$) Chart audit: consumers ($n = 58$) Group interview: occupational therapists ($n = 12$)	Two similar health services providing hospital and community health care (rural & regional)	Westmead Home Safety Assessment (WeSHA)	Occupational Therapy led FHR@Home	i-PARIHS	Determinant Framework
14	Somerville et al. (2024) USA	Describe the key elements of the Home Hazard Removal Program (HARP)	Post-implementation quantitative process evaluation using the RE-AIM framework	RCT participants: older adults ($n = 310$)	One city area agency on ageing (AAA) providing	Home Hazard Removal Program (HARP)-based on WeSHA	Occupational Therapy led FHR@Home	RE-AIM Framework	Evaluation Framework

TABLE 3 (Continued)

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
		intervention to foster successful and timely implementation in the United States	to examine outcomes of a hybrid RCT. Descriptive statistics and frequency distribution used to examine data		community services (metropolitan)				
15	Tynan et al. (2023) Australia	Understand determinants of implementation success towards sustained practice change in rural and regional settings.	Post-implementation qualitative study based on the COM-B model of behaviour change	Individual interviews: occupational therapists ($n = 6$)	Two similar health services providing hospital and community health care (rural & regional)	Westmead Home Safety Assessment (WeSHA)	Occupational Therapy led FHR@Home	COM-B i-PARIHS ERIC	Implementation Theory Determinant Framework Implementation Strategy Taxonomy
16	Van Haastregt et al. (2002) The Netherlands	Provide insight in factors related to the intervention process that might have influenced the effectiveness of this home visit program.	Post-implementation mixed method process evaluation reviewing deviation, visit numbers and times, compliance and nurses/ participant opinions	Individual interview: elderly people ($n = 159$) Questionnaires: elderly people ($n = 159$) Group interview: nurses ($n = 4$)	One health centre providing community health (metropolitan)	Structured multifactorial home visit programme (5 visits)	MF falls assessment and intervention-FHR@Home for high-risk clients	Process evaluation	Evaluation Framework
17	Vandervelde et al. (2025) Belgium	Analyse and describe determinants at all levels of the context that influence the implementation of a multifactorial falls prevention intervention in the community	Public Health approach qualitative study with groups of people involved in falls prevention in the community Analysed using the Qualitative Analysis Guide of Leuven (QUAGOL) and linking to the TICD checklist	Semi-structured interviews: Key persons ($n = 6$), Older people ($n = 4$) Group interviews: healthcare professionals ($n = 16$); local policy makers ($n = 6$); older people ($n = 3$)	One city with 5 provinces consisting of 60 geographically defined primary care areas (metropolitan)	N/a	MF falls prevention practice – FHR@Home noted as part of the intervention	Integrated Checklist of Determinants of Practice (TICD checklist)	Determinant Framework

(Continues)

TABLE 3 (Continued)

	Authors	Aim	Study design	Data collection	Context of study	Falls intervention		Implementation Science theory, model, framework	
						Name	Focus	Name	Category
18	Vlaeyen et al. (2016) [translated] Belgium	Summary of the recommendations from the 'Implementation of falls and fracture prevention in older people' symposium	Group consensus for policy development and implementation recommendations. Based on a health professional focused, falls prevention symposium	Preliminary brainstorming event: Health professionals ($n = 45$) Symposium: Experts ($n = 3$)	Representatives from universities, community health services, residential care centres, government and companies from the Flanders region	N/a	MF falls prevention practice – FHR@Home noted as part of the intervention	Addresses the fundamentals of Implementation Science – identification of barriers and strategies to overcome barriers (Nilsen, 2024a)	N/a
19	Wen Koh et al. (2023) Singapore	Engage stakeholders to uncover the factors that facilitate or inhibit implementing community-based fall prevention program, as well as make recommendations for policy.	Group consensus for policy development and implementation recommendations and development of Causal Loop Diagram (CLD) using a system modelling methodology of Group Model Building (GMB)	Stakeholders: Health Professionals ($n = 9$); Researchers ($n = 7$)	Representatives from Hospitals and Research Institutes	N/a	MC falls prevention practice – FHR@Home noted as part of the intervention	Addresses the fundamentals of Implementation Science – identification of barriers and strategies to overcome barriers (Nilsen, 2024a)	N/a

Abbreviations: CFIR, Consolidated Framework for Implementation Research; COM-B, Capability, Opportunity, and Motivation-Behaviour model; ERIC, Expert recommendations for implementing change; i-PARIHS, integrated-Promoting Action on Research Implementation in Health Services framework; KTA, Knowledge to Action framework; MC, multicomponent fall prevention intervention; MF, multifactorial fall prevention intervention; NPT, Normalisation Process Theory; RE-AIM framework, Reach, Effectiveness, Adoption, Implementation, and Maintenance framework.

3.2 | Description of studies

Table 3 provides an overview of the included papers. Just over half of the papers were published within the last 5 years. The earliest paper was published in 2002 (van Haastregt et al., 2002) and most recent in 2025 (Vandervelde et al., 2025). Figure 3 outlines the country of origin of the included papers.

Eight studies were completed post-implementation (Clemson et al., 2014; Dorresteijn et al., 2013; Fortinsky et al., 2008; Kramer et al., 2011; Mackenzie et al., 2020; Somerville et al., 2024; Tynan et al., 2023; van Haastregt et al., 2002), four pre-implementation (Bjerk et al., 2024; Linnerud et al., 2023; Linnerud et al., 2024; Pighills et al., 2019), two pre- and post-implementation (Fernandez et al., 2024; Kittipimpanon et al., 2012), one post dissemination (Baker et al., 2005), and two papers were public health studies (Dykeman et al., 2018; Vandervelde et al., 2025). Two papers were not attached to a specific project and used a group consensus methodology as part of policy development (Vlaeyen et al., 2016; Wen Koh et al., 2023). The remaining papers included six qualitative studies (Clemson et al., 2014; Dykeman et al., 2018; Kramer et al., 2011; Linnerud et al., 2024; Mackenzie et al., 2020; Tynan et al., 2023; Vandervelde et al., 2025), six mixed method studies (Baker et al., 2005; Dorresteijn et al., 2013; Kittipimpanon et al., 2012; Linnerud et al., 2023; Pighills et al., 2019; van Haastregt et al., 2002), and three quantitative studies (Fernandez et al., 2024; Fortinsky et al., 2008; Somerville et al., 2024). One paper is a study protocol for a national RCT (Bjerk et al., 2024).

Multifactorial ($n = 10$) or multicomponent ($n = 3$) initiatives, with FHR@Home a component of the intervention, accounted for 70% of the papers (Baker et al., 2005; Bjerk et al., 2024; Fernandez et al., 2024; Fortinsky et al., 2008; Kittipimpanon et al., 2012; Kramer et al., 2011; Linnerud et al., 2023; Linnerud et al., 2024; van Haastregt et al., 2002; Vandervelde et al., 2025; Vlaeyen et al., 2016; Wen Koh et al., 2023). One paper addressed public health opinion of evidence-based falls prevention practice, including FHR@Home (Dykeman et al., 2018). The remaining six studies focused on FHR@Home, five of those were occupational therapist led (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Somerville et al., 2024; Tynan et al., 2023), and one nurse led (Dorresteijn et al., 2013). Of the five occupational therapy studies, four used the Westmead Home Safety Assessment (WeSHA) (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Tynan et al., 2023), and one used the Home Hazard Removal Program (HARP), which is based on the WeSHA (Somerville et al., 2024).

Six papers used evaluation frameworks (Clemson et al., 2014; Dorresteijn et al., 2013; Kramer et al., 2011; Mackenzie et al., 2020; Somerville et al., 2024; van

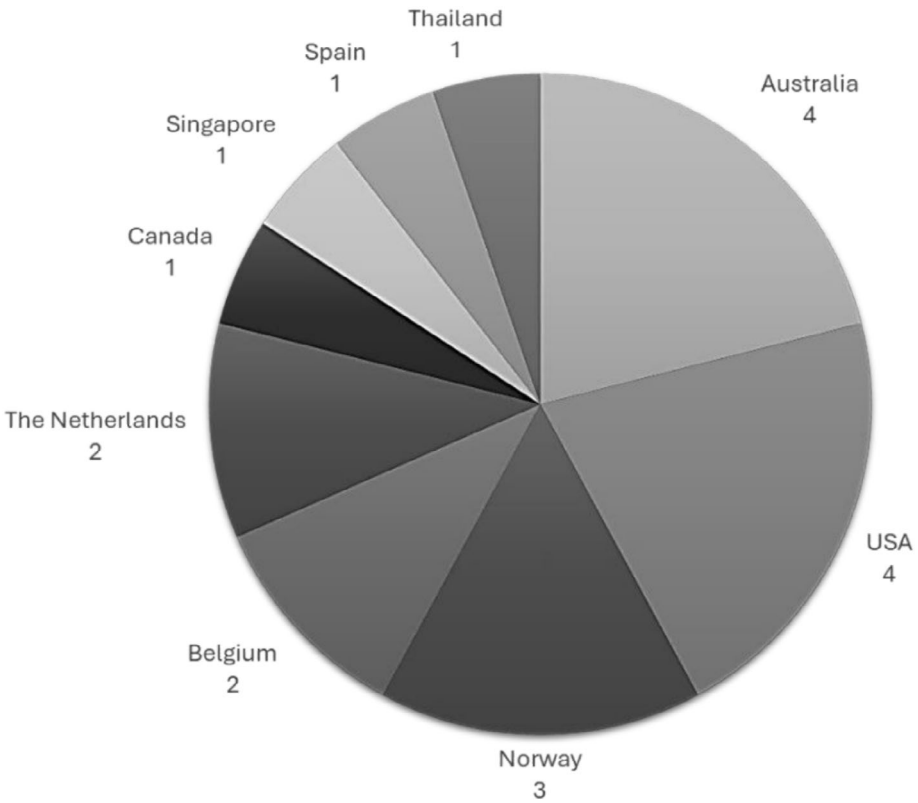

FIGURE 3 Country of origin of included literature.

Haastregt et al., 2002), three of which were unnamed process evaluations (Dorresteijn et al., 2013; Mackenzie et al., 2020; van Haastregt et al., 2002), and eight used a determinant framework (Bjerk et al., 2024; Dykeman et al., 2018; Kittipimpanon et al., 2012; Linnerud et al., 2023; Linnerud et al., 2024; Pighills et al., 2019; Tynan et al., 2023; Vandervelde et al., 2025). Three papers drew on classic theories, for example, Diffusion of Innovations (Baker et al., 2005; Clemson et al., 2014; Fortinsky et al., 2008), and three were based in implementation theory, for example, Normalisation Process Theory (Linnerud et al., 2024; Mackenzie et al., 2020; Tynan et al., 2023). Two papers discussed the use of a process model, the Knowledge-to-Action framework (Bjerk et al., 2024; Fernandez et al., 2024). Two papers did not use a specific model, theory, or framework and instead addressed the identification of barriers and strategies to overcome barriers to implementation (Vlaeyen et al., 2016; Wen Koh et al., 2023).

3.3 | Mapping implementation strategies using ERIC taxonomy

Figure 4 provides an overview of the charted implementation strategies, and their go-zone quadrants organised into clusters, as described by Waltz et al. (2015). Please refer to Figure 2 for names of implementation strategies. Cluster 4 (Develop stakeholders' interrelationships) was the most frequently described cluster, representing 30% of the total descriptions of strategies. This is due mostly to strategy 35 (Identify and prepare champions), appearing in approximately 70% of the papers. Of note, strategy 52 (Promote network weaving), described as building on existing networks outside the services to support the innovation, appeared in a quarter of the papers despite being considered low importance and low feasibility.

Within cluster 5 (Train and educate stakeholders), six of the 11 strategies appeared in over 30% of the papers. Strategies 29 (Develop educational materials) and 15 (Conduct educational meetings) were described in almost 50% of the papers. Four other strategies in cluster 5 (19, 43, 31, and 20) were described in over 30% of the papers.

Cluster 1 (Use evaluative and iterative strategies) was less frequently reported on compared to clusters 4 and 5, despite comprising of strategies deemed both important and feasible (Waltz et al., 2015). The highest percentage of reports for strategies in this cluster was just over 25% (strategies 5 and 23).

Two of the four strategies in cluster 3 (Adapt and tailor to context) appeared frequently within the papers. Strategy 51 (Tailor strategies) was described in 30% of the papers and strategy 63 (Promote adaptability) in 40%. In contrast, cluster 2 (Provide interactive assistance), which also has four strategies, had relatively few mentions. Only strategy 53 (Provide clinical supervision) was described in more than 10% of papers. Of the remaining strategies in cluster 2, those focusing on technical assistance featured in 5% or less papers. Strategy 21 (Facilitation), which is considered both feasible and important, was described only once (Waltz et al., 2015).

Most strategies in cluster 7 (Engage consumers) are considered to have less feasibility in comparison to cluster 6 (Support clinicians) (Waltz et al., 2015). However, the strategies in cluster 7 appeared more frequently than those in cluster 6, perhaps reflecting the drive to include consumers in research and implementation. Clusters 8 (Utilise financial strategies) and 9 (Change infrastructure) were rarely mentioned in the included papers, which could be anticipated, as most of the strategies in these clusters were considered to have lower importance and feasibility.

3.4 | Thematic analysis

Through thematic analysis of the included articles, the research team derived three interrelated themes, which are described in the literature as having a bearing on the success and sustainability of FHR@Home implementation initiatives. These themes are (1) Home as a practice context, (2) Collaboration is a key to success, and (3) Balance of assumed knowledge, experience, and fidelity.

3.4.1 | Home as a practice context

There is consensus in the included literature that addressing falls hazards in the home environment reduces falls risk (Baker et al., 2005; Bjerk et al., 2024; Clemson et al., 2014; Dorresteijn et al., 2013; Dykeman et al., 2018; Fernandez et al., 2024; Fortinsky et al., 2008; Kittipimpanon et al., 2012; Kramer et al., 2011; Linnerud et al., 2023; Linnerud et al., 2024; Mackenzie et al., 2020; Pighills et al., 2019; Somerville et al., 2024; Tynan et al., 2023; van Haastregt et al., 2002; Vandervelde et al., 2025; Vlaeyen et al., 2016; Wen Koh et al., 2023). Beyond this, consumers report positive outcomes resulting from the delivery of falls prevention interventions specifically within the home (Dorresteijn et al., 2013; Somerville et al., 2024; van Haastregt et al., 2002; Vlaeyen et al., 2016; Wen Koh et al., 2023). In addition, elimination of the need to travel increased consumer willingness to participate in falls prevention interventions (Somerville et al., 2024; Vlaeyen et al., 2016; Wen Koh

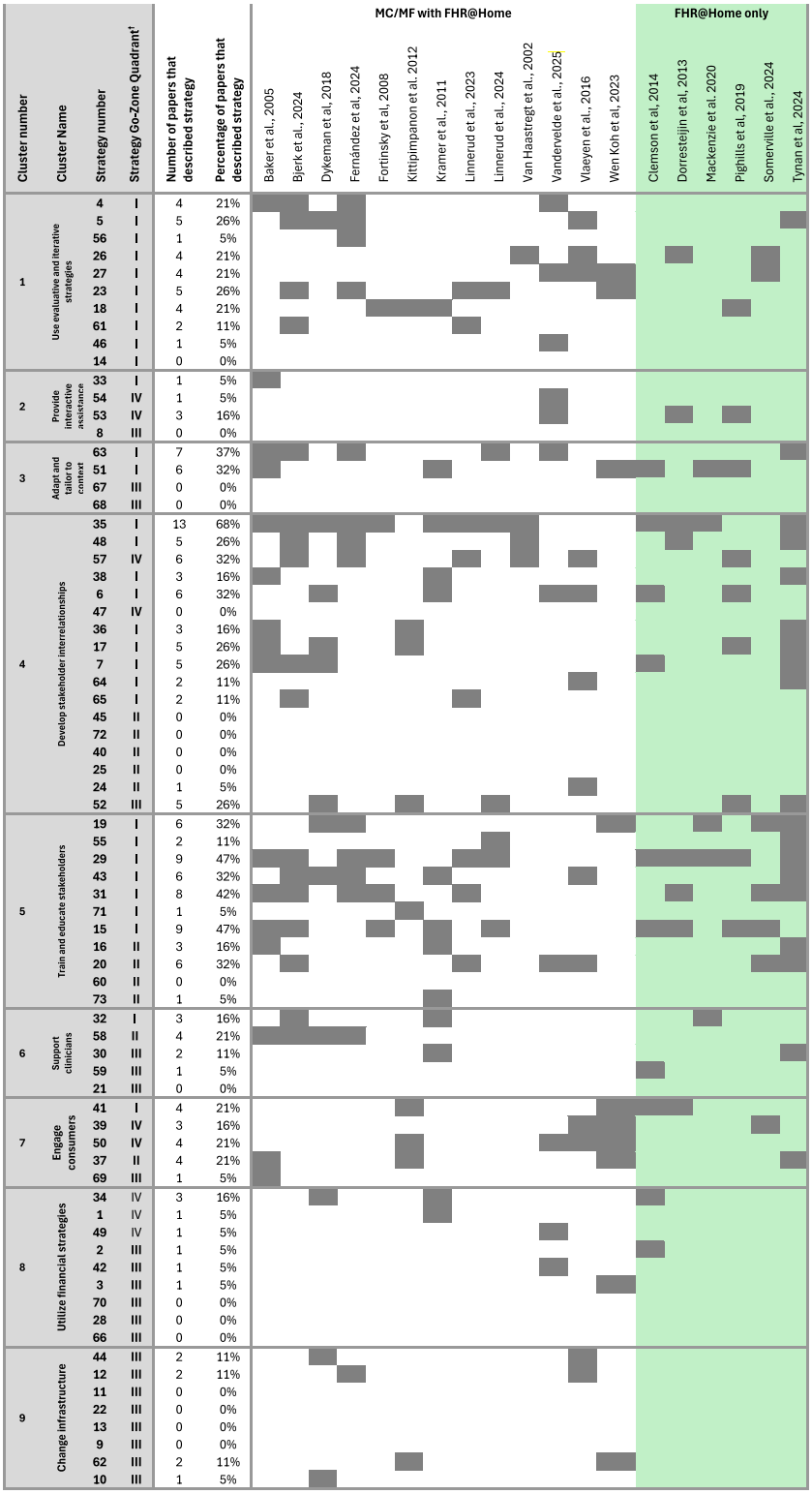

FIGURE 4 Implementation strategies outlined, mapped to Expert Recommendations for Implementing Change (ERIC) Clusters and Strategies (Waltz et al., 2015). †Go-zone quadrant categories: (I) Importance and feasibility are both above the scale means; (II) importance rating is lower, and feasibility rating is higher than the scale means; (III) importance and feasibility ratings are both below scale means; and (IV) importance rating higher and feasibility lower than scale means.

et al., 2023), and consumers reported an increased sense of safety at home due to the individual approach afforded by home based intervention (Dorresteijn et al., 2013), an increased feeling of trust between the consumer and clinician (Dorresteijn et al., 2013; Fernandez et al., 2024), and the view that recommendations were better orientated to the wishes and needs of consumers (van Haastregt et al., 2002).

Conversely, several papers identified unique operational challenges in providing home-based interventions (Baker et al., 2005; Kittipimpanon et al., 2012; Kramer et al., 2011; Mackenzie et al., 2020; Pighills et al., 2019;

Somerville et al., 2024; Tynan et al., 2023; Vlaeyen et al., 2016; Wen Koh et al., 2023). Five papers identified lack of funding and time to provide environmental modification as barriers to implementing FHR@Home recommendations (Baker et al., 2005; Kittipimpanon et al., 2012; Mackenzie et al., 2020; Pighills et al., 2019; Vlaeyen et al., 2016). Another paper noted that the lack of funding to cover the cost of home-based interventions increases the financial burden on consumers, which may dissuade older people who are willing to undertake falls intervention, but would prefer to do so from home due to mobility concerns or personal preferences (Wen Koh et al., 2023).

Additionally, increased clinician time needed to undertake home assessments and associated increased service costs were reported as potential barriers (Kramer et al., 2011; Somerville et al., 2024; Tynan et al., 2023). For example, one paper indicated that the administrative cost and legal liability of contracting appropriate personnel to complete home modifications posed challenges that may limit services from providing FHR@Home as a component of multi-factorial falls prevention interventions (Kramer et al., 2011).

The study findings also pointed to a subtle influence on the delivery and receipt of FHR@Home for falls prevention resulting from the home-based service delivery context. Over half of the papers commented that, aside from FHR@Home, other falls prevention intervention tends to be delivered in institutional settings, such as falls clinics, which brings with it a degree of stability and formality (Bjerk et al., 2024; Clemson et al., 2014; Dorresteijn et al., 2013; Kramer et al., 2011; Linnerud et al., 2024; Mackenzie et al., 2020; Pighills et al., 2019; Somerville et al., 2024; van Haastregt et al., 2002; Vandervelde et al., 2025; Vlaeyen et al., 2016; Wen Koh et al., 2023). In contrast, the literature suggests that some clinicians modify the delivery of standardised FHR@Home processes in the home environment to match the informality of the home context (Clemson et al., 2014; Dorresteijn et al., 2013; Pighills et al., 2019; van Haastregt et al., 2002). In addition to modifying standardised assessment processes, the authors of one paper noted that standardised environmental assessments were not being used at all. Within the 58 charts they audited, there was no evidence of comprehensive, validated home hazard assessment or standardised evaluation of functional capacity of the client (Pighills et al., 2019).

Additionally, the home context appears to support consumers' willingness to exercise greater control over their intervention, including reports of consumers declining or delaying home assessments (Somerville et al., 2024; Tynan et al., 2023). Two papers reported that consumers declined access to specific areas within their home, such as those they deemed to be private spaces (Dykeman et al., 2018; van Haastregt et al., 2002). Furthermore, some papers discussed instances of consumers rejecting proposed modifications within the home context. Reasons for this included not being ready for the changes and associating modifications with the stigma of being old (Dorresteijn et al., 2013; Pighills et al., 2019; Somerville et al., 2024; van Haastregt et al., 2002).

3.4.2 | Collaboration is key to success

Over half of the reviewed papers either employed or recommended a collaborative approach with local stakeholders (such as clinicians and health care managers, home care and medical services, consumers and their caregivers, and the general public) in the design and delivery of falls prevention practice (Baker et al., 2005; Bjerk et al., 2024; Fernandez et al., 2024; Kittipimpanon et al., 2012; Linnerud et al., 2023; Linnerud et al., 2024; Pighills et al., 2019; Tynan et al., 2023; van Haastregt et al., 2002; Vlaeyen et al., 2016; Wen Koh et al., 2023). Three papers, all of which addressed the same project, described this process as co-creation and discussed the leading roles of stakeholders in the development and delivery of the project from its inception (Baker et al., 2005; Linnerud et al., 2023; Linnerud et al., 2024). Several papers commented that stakeholders deemed a collaborative approach, both within their own services and with other services, to be central to the success of implementation (Dykeman et al., 2018; Kittipimpanon et al., 2012; Linnerud et al., 2023; Linnerud et al., 2024; Pighills et al., 2019; Tynan et al., 2023; Vandervelde et al., 2025).

The literature also described a push for local stakeholder buy-in to create solutions to pragmatic challenges (Dykeman et al., 2018; Mackenzie et al., 2020; Pighills et al., 2019; Tynan et al., 2023). One such description was a call for a community-wide approach, including local government, local services, and the community at large, to design and deliver falls prevention intervention to suit the contextualised local needs (Dykeman et al., 2018). Other papers discussed the value of health services working closely with home modification and assistive technology providers to streamline potentially lengthy processes (Kramer et al., 2011; Pighills et al., 2019; Tynan et al., 2023). Creating effective communication processes between stakeholders, particularly between referral sources and clinicians, who provide falls prevention intervention, was also discussed in several sources as a means to support implementation (Baker et al., 2005; Dykeman et al., 2018; Mackenzie et al., 2020; Pighills et al., 2019; Tynan et al., 2023;Vandervelde et al., 2025; Vlaeyen et al., 2016).

The benefits of collaboration with consumers in home-based falls prevention practice were also discussed frequently in the literature. A third of the reviewed papers indicated that collaborative approaches to creating solutions within the home contributed to a sense of autonomy and ownership among consumers (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Somerville et al., 2024; Vandervelde et al., 2025; Vlaeyen et al., 2016). Two of these papers reported that collaboration with older people, as well as their informal caregivers, allows for falls prevention initiatives to be matched to their life goals (Vandervelde et al., 2025; Vlaeyen et al., 2016). One paper reported that motivational interviewing, used to support older people to tailor their intervention, promoted high acceptance, adherence, and behavioural change (Somerville et al., 2024). Collaboration also appears to provide a sense of satisfaction for health professionals, as reflected in three papers that discussed positive feedback from clinicians who had engaged in a process that allowed for creating solutions with their clients, rather than for their clients (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019).

It is worth noting, however, that two papers suggested that a collaborative approach only seemed effective if the individual considered they were at risk of falls (Clemson et al., 2014; Pighills et al., 2019). One clinician described the collaboration process with someone who does not consider themselves to be as a falls risk as 'really difficult because they're not coming with you on that journey' (Clemson et al., 2014, p. 329). Furthermore, four papers noted that clients may downplay their risks or misunderstand falls prevention (Linnerud et al., 2023; Linnerud et al., 2024; Mackenzie et al., 2020; Wen Koh et al., 2023), and three papers stated that clinicians found it difficult to support clients to identify falls risks in their homes (Clemson et al., 2014; Dorresteijn et al., 2013; van Haastregt et al., 2002). The authors of these papers stated that factors such as these make it difficult to participate in collaborative solution generation.

3.4.3 | Balance of assumed knowledge, experience, and fidelity

Most of the papers in this review either focused on occupational therapy led FHR@Home (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Somerville et al., 2024; Tynan et al., 2023) or discussed occupational therapists as the profession responsible for FHR@Home as part of a broader multidisciplinary team (Bjerk et al., 2024; Kramer et al., 2011; Linnerud et al., 2023; Linnerud et al., 2024; Vlaeyen et al., 2016; Wen Koh et al., 2023). Among these, four papers suggested that the FHR@Home falls prevention approach aligns closely with occupational therapy philosophy, values, skills, and knowledge (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Tynan et al., 2023). For example, occupational therapists in published qualitative research described FHR@Home in occupational therapy using phrases such as 'bread and butter' and 'fundamental' (Clemson et al., 2014, p. 328) and 'core skills and core business' (Pighills et al., 2019, p. 355). In the results of a post implementation study, one clinician stated that executing FHR@Home falls prevention practice reaffirmed that occupational therapy is the 'right profession to be doing these home safety assessments and environmental assessments' (Tynan et al., 2023, p. 208). It is, perhaps, because of this that the literature reflected a general enthusiasm from occupational therapists to engage with FHR@Home falls prevention (Clemson et al., 2014; Mackenzie et al., 2020; Pighills et al., 2019; Tynan et al., 2023).

A curious interplay seemed to be present within the literature between assumed expertise and actual FHR@Home practice among occupational therapists, possibly arising from the close alignment between FHR@Home and occupational therapy theoretical foundations. Two papers reported that occupational therapists believed they were already delivering evidence-based FHR@Home falls prevention prior to the implementation process (Clemson et al., 2014; Pighills et al., 2019), despite a chart audit in one paper demonstrating a lack of systematic FHR@Home practice (Pighills et al., 2019). In these same papers, however, occupational therapists indicated that the theory behind FHR@Home falls prevention is not common knowledge within general occupational therapy practice and further suggested that FHR@Home outcomes cannot be measured, despite the existence of a solid evidence base demonstrating efficacy (Clemson et al., 2014; Pighills et al., 2019).

Although the published literature discussed a range of positive outcomes arising from adoption of a systematic approach to falls hazard reduction at home (Clemson et al., 2014; Dorresteijn et al., 2013; Pighills et al., 2019; Somerville et al., 2024; Tynan et al., 2023; van Haastregt et al., 2002), many papers indicated a degree of reticence among therapists to adhere to FHR@Home assessment guidelines. Three papers reported that some occupational therapists perceive the systematic approach of FHR@Home could be time consuming (Clemson et al., 2014; Pighills et al., 2019), particularly for those with higher needs (Somerville et al., 2024). One paper discussed a perception among occupational therapist that, although the systematic approach was useful for novice occupational therapists, it was cumbersome for those with more experience, leading them to adapt

the validated assessment and use only certain elements (Pighills et al., 2019). There was also a view that more experienced clinicians are more skilled and, therefore, require less training and support in FHR@Home than their novice counterparts (Clemson et al., 2014; Pighills et al., 2019). Some authors expressed concern that such perceptions may lead to modifications to or omissions of elements of the validated, systematic FHR@Home process, resulting in a loss of fidelity to the intervention being provided and compromised consumer outcomes (Clemson et al., 2014; Pighills et al., 2019; van Haastregt et al., 2002).

4 | DISCUSSION

The aim of this review was to understand the implementation strategies used to support home and community environmental falls prevention intervention in health care for older people. By mapping the strategies described in the included literature to the nine clusters of the Expert Recommendations for Implementing Change (ERIC) taxonomy, this review demonstrated that all clusters were present in the included studies in some form, albeit with differing levels of emphasis. Perhaps unsurprisingly, considering the person-centred nature of falls prevention practice, strategies relating to stakeholder engagement and education are the most frequently described. Some clusters, however, were mentioned less often despite being considered important and feasible. For example, the strategies in the 'Provide interactive assistance' cluster were rarely described. It remains unclear whether absence or infrequent reports of certain strategies reflects limited use or a lack of detail and/or clarity in the reporting. This gap in process and/or reporting has two important implications. First, future studies of FHR@Home implementation processes may benefit from routinely adopting a specific FHR@Home intervention framework (Keglovits et al., 2020), an implementation taxonomy and clearly reporting the strategies used. Second, additional research into the applicability and value of specific strategies may be useful to provide support to future implementation projects.

The first theme identified in this review (Home as a practice context) reveals the influence of the personal nature of home on the receptiveness to and uptake of FHR@Home practice. The concept of home is a complex sociological and occupational phenomenon (Aplin et al., 2013; Boccagni & Kusenbach, 2020). Accordingly, occupational therapists have sought to describe the interplay between the many dimensions of home that influence decision making for home-based intervention (Aplin et al., 2013). The findings of this review suggest that the complexity of home as a practice context has a potentially varied impact on implementation, particularly in relation to the use of validated tool in the home environment and the comprehensive nature of FHR@Home. Privacy, informality, and sense of security are inherent in the home context (Aplin et al., 2013). These elements may foster greater engagement from both the consumer and the therapist, particularly in the co-creation element of FHR@Home. Engagement to this process may, in turn, increase the likelihood of successful implementation. Conversely, these same qualities may influence how therapists engage with the comprehensive and standardised nature of FHR@Home, prompting them to seek greater flexibility to support client control, thereby impacting the fidelity and efficacy of the intervention. Accordingly, it may be beneficial to explore how consumers perceptions of home influence the systematic nature of FHR@Home falls prevention assessments and recommendations, with the aim of promoting engagement from both therapists and consumers in the implementation process while simultaneously balancing intervention fidelity.

In relation to our second theme, our findings revealed a general perception that collaborative approaches support implementation outcomes. FHR@Home is best delivered when using a co-creation process, where clinicians and consumers work together to identify hazards and possible solutions (Pighills et al., 2011). This approach has been endorsed as good practice in the *Preventing Falls and Harm from Falls in Older People: Best Practice Guidelines for Community Care in Australia* published by the Australian Commission on Safety and Quality in Health Care (2025). However, this review has shown that this process can be difficult when there is a disconnect between the expectations of clinicians and consumers. Enhancing clinician skills and confidence in collaborative approaches, such as co-creation and co-design, alongside educating consumers about the process, may help bridge this gap and support greater uptake and implementation success. Another key finding within the second theme centres on close collaboration with services, particularly those that provide home modification and assistive technology. These interventions are integral to the success of FHR@Home, however, they can be time-consuming to implement (Clemson et al., 2014; Kramer et al., 2011; Pighills et al., 2019; Somerville et al., 2024; Tynan et al., 2023). A collaborative approach to home modification and assistive technology supports timeliness, consumer satisfaction, and acceptance of home-based adaptations, which in turn may facilitate smoother implementation processes (Aplin et al., 2020; Lange et al., 2024). These findings align with a recent scoping review that has identified the benefits of cross-

sector collaboration and coordination to support implementation of multifactorial falls prevention initiatives (van Scherpenseel et al., 2023).

Regarding the occupational therapy role, the findings of this review point to a tendency for some clinicians to adapt FHR@Home processes, based on their perceived level of knowledge and experience. Furthermore, this tendency to make adaptations to the standardised approach is based on an assumption that FHR@Home is simply core occupational therapy practice. This creates a potential problem given that evidence suggests that fidelity to the intervention criteria of FHR@Home provides the greatest benefits in falls prevention (Clemson et al., 2008; Clemson et al., 2023) and, hence, successful implementation may require therapists to remain true to a more standardised approach. Modifying or omitting elements of the conceptual framework and/or the core criteria of the FHR@Home intervention, whether for expediency or other reasons, compromises its effectiveness, particularly for older adults at high risk of falls (Clemson et al., 2008; Keglovits et al., 2020). It may be that successful implementation of FHR@Home will need to challenge the underlying assumptions held by therapists, that criteria for a comprehensive FHR@Home intervention can be modified or that elements can be omitted, whilst respecting central tenets of consumer autonomy and therapist creativity.

Finally, this review identified a general lack of uniformity in both the falls prevention programs implemented and the processes used to evaluate their implementation outcomes, including the use of theories, models, and frameworks. Additionally, much of the research tends to focus on multifactorial or multicomponent interventions, rather than focused specifically on home-based fall hazard reduction. This lack of uniformity and specificity in the literature highlights important considerations for future research into the FHR@Home. Given the strength of the literature supporting occupational therapy-led FHR@Home falls prevention (Clemson et al., 2023), there is benefit for future research studies to focus on implementation strategies and outcomes rather than re-evaluating the effectiveness of FHR@Home itself. Designing studies to explore implementation processes and outcomes has the potential to advance the dissemination of evidence-based FHR@Home practice and help to narrow the research-to-practice gap (Juckett et al., 2019).

5 | LIMITATIONS

The heterogeneous nature of the included articles, regarding study design, setting, and falls prevention interventions (including amount of FHR@Home included in the intervention), introduces limitations to data synthesis. Such heterogeneity in implementation research in falls has been noted in previous literature and scoping reviews (van Scherpenseel et al., 2023; Vandervelde et al., 2023, 2024). Furthermore, only two articles employed the ERIC taxonomy to describe the implementation strategies. As a result, implementation strategy mapping was completed by searching for key words and phrases relying on the authors' knowledge and understanding of the ERIC taxonomy.

Notably, there were minimal articles focusing solely on occupational therapy led FHR@Home. This absence may limit the relevance and applicability of the findings to occupational therapy practice, particularly in contexts where therapists play a central role in falls prevention. This gap highlights the need for future research to more explicitly understand implementation process of occupational therapy led FHR@Home initiatives.

6 | CONCLUSION

This scoping review sought to explore implementation strategies used to support home and community environmental falls prevention intervention in health care. The review found a lack of consistency and uniformity in the reporting of implementation strategies. The strategies that were reported tended to be those relating to stakeholder engagement and education. In addition to this, this review identified a need to explore the contextual influence of home on the standardised delivery of FHR@Home to support consumer control without compromising fidelity. Furthermore, this review recognised the benefits of collaboration in implementation, while noting that collaboration is difficult when consumers do not see themselves as being at risk. Including opportunities to build skills and knowledge for both clinicians and consumers within implementation initiatives may help address this barrier. Finally, future implementation efforts may benefit from examining and addressing assumptions about FHR@Home as a routine or foundational occupational therapy practice. Challenging this assumption may help to ensure fidelity to the structured protocols of FHR@Home and, ultimately, increase effectiveness of the intervention.

AUTHOR CONTRIBUTIONS

All authors were involved in the design of the scoping review, which was conceptualised by Susan Melchert. Susan Melchert, Daniel Lowrie, and Alison Pighills involved in creating inclusion criteria. Susan Melchert manually searched reference lists of included studies,

developed the data extraction template following team discussions and extracted the data for analysis. Susan Melchert, Daniel Lowrie, and Alison Pighills reviewed the data extraction. Susan Melchert led the analysis and summary of the results, under supervision of Daniel Lowrie and Alison Pighills. Susan Melchert prepared the draft manuscript with editing and revision by Daniel Lowrie and Alison Pighills. All authors approved the final manuscript.

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A draft plain word summary of this review was entered into Co-Pilot™ with the prompt to 'provide a summary with a reading level no greater than Flesch Kincaid level 9'. The output was checked, refined, and confirmed by the authors to before inclusion. Artificial intelligence was not used for remainder of this research and article.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article, as no datasets were generated or analysed during the current study.

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REFERENCES

Aplin, T., de Jonge, D., & Gustafsson, L. (2013). Understanding the dimensions of home that impact on home modification decision making. *Australian Occupational Therapy Journal*, *60*(2), 101–109. https://doi.org/10.1111/1440-1630.12022

Aplin, T., Hoyle, M., Fiechtner, E., Bailey, A., & Ainsworth, E. (2020). Home modification service delivery in Australia. *Journal of Aging and Environment*, *34*(2), 190–209. https://doi.org/10.1080/26892618.2020.1743512

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/10.1080/1364557032000119616

Australian and New Zealand Falls Prevention Society (ANZFPS). (2022). Why investing in falls prevention across Australia can't wait.

Australian Commission on Safety and Quality in Health Care. (2025). Preventing falls and harm from falls in older people: Best practice guidelines for community care in Australia. https://www.safetyandquality.gov.au/publications-and-resources/resource-library/falls-guidelines-community-care

Australian Institute of Health Welfare. (2022). Falls in older Australians 2019–20: Hospitalisations and deaths among people aged 65 and over. https://www.aihw.gov.au/reports/injury/falls-in-older-australians-2019-20-hospitalisation

Baker, D. I., King, M. B., Fortinsky, R. H., Graff, L. I., Gottschalk, M., Acampora, D., Preston, J., Brown, C. J., & Tinetti, M. E. (2005). Dissemination of an evidence-based multicomponent fall risk-assessment and -management strategy throughout a geographic area. *Journal of the American Geriatrics Society*, *53*(4), 675–680. https://doi.org/10.1111/j.1532-5415.2005.53218.x

Bjerk, M., Flottorp, S. A., Pripp, A. H., Øien, H., Hansen, T. M., Foy, R., Close, J., Linnerud, S., Brovold, T., Solli, R., Olsen, N. R., Skelton, D. A., Rydwik, E., Helbostad, J. L., Idland, G., Kvæl, L., Vieira, E., & Taraldsen, K. (2024). Tailored implementation of national recommendations on fall prevention among older adults in municipalities in Norway (FALLPREVENT trial): A study protocol for a cluster-randomised trial. *Implementation Science*, *19*(1), 5. https://doi.org/10.1186/s13012-024-01334-2

Boccagni, P., & Kusenbach, M. (2020). For a comparative sociology of home: Relationships, cultures, structures. *Current Sociology*, *68*(5), 595–606. https://doi.org/10.1177/0011392120927776

Clemson, L., Donaldson, A., Hill, K., & Day, L. (2014). Implementing person-environment approaches to prevent falls: A qualitative inquiry in applying the Westmead approach to occupational therapy home visits. *Australian Occupational Therapy Journal*, *61*(5), 325–334. https://doi.org/10.1111/1440-1630.12132

Clemson, L., Mackenzie, L., Ballinger, C., Close, J. C. T., & Cumming, R. G. (2008). Environmental interventions to prevent falls in community-dwelling older people: A meta-analysis of randomized trials. *Journal of Aging and Health*, *20*(8), 954–971. https://doi.org/10.1177/0898264308324672

Clemson, L., Stark, S., Pighills, A. C., Fairhall, N. J., Lamb, S. E., Ali, J., & Sherrington, C. (2023). Environmental interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews*, *3*. https://doi.org/10.1002/14651858.CD013258.pub2

Dorresteijn, T. A. C., Rixt Zijlstra, G. A., van Haastregt, J. C. M., Vlaeyen, J. W. S., & Kempen, G. I. J. M. (2013). Feasibility of a nurse-led in-home cognitive behavioral program to manage concerns about falls in frail older people: A process evaluation. *Research in Nursing & Health*, *36*(3), 257–270. https://doi.org/10.1002/nur.21534

Dykeman, C. S., Markle-Reid, M. F., Boratto, L. J., Bowes, C., Gagné, H., McGugan, J. L., & Orr-Shaw, S. (2018). Community service provider perceptions of implementing older adult fall prevention in Ontario, Canada: A qualitative study. *BMC Geriatrics*, *18*(1), 34. https://doi.org/10.1186/s12877-018-0725-3

Fernandez, M. G., Pantiga, M. M., Fernandez, C. P., Munoz, L. A., & Guerrero, C. G. (2024). Fall assessment and intervention among community-dwelling older people in a primary health care center in Spain: A best practice implementation project. *JBI Evidence Implementation*, *23*, 403–413. https://doi.org/10.1097/XEB.0000000000000440

Fixsen, D., Scott, V., Blase, K., Naoom, S., & Wagar, L. (2011). When evidence is not enough: The challenge of implementing fall prevention strategies. *Journal of Safety Research*, *42*(6), 419–422. https://doi.org/10.1016/j.jsr.2011.10.002

Fortinsky, R. H., Baker, D., Gottschalk, M., King, M., Trella, P., & Tinetti, M. E. (2008). Extent of implementation of evidence-based fall prevention practices for older patients in home health care. *Journal of the American Geriatrics Society*, *56*(4), 737–743. https://doi.org/10.1111/j.1532-5415.2007.01630.x

Hopewell, S., Adedire, O., Copsey, B. J., Boniface, G. J., Sherrington, C., Clemson, L., Close, J. C. T., & Lamb, S. E. (2018). Multifactorial and multiple component interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews*, *7*. https://doi.org/10.1002/14651858.CD012221.pub2

Juckett, L. A., Robinson, M. L., & Wengerd, L. R. (2019). Narrowing the gap: An implementation science research agenda for the occupational therapy profession. *The American Journal of Occupational Therapy*, *73*(5), 7305347010p1-7305347010p6. https://doi.org/10.5014/ajot.2019.033902

Keglovits, M., Clemson, L., Hu, Y.-L., Nguyen, A., Neff, A. J., Mandelbaum, C., Hudson, M., Williams, R., Silianoff, T., & Stark, S. (2020). A scoping review of fall hazards in the homes of older adults and development of a framework for assessment and intervention. *Australian Occupational Therapy Journal*, *67*(5), 470–478. https://doi.org/10.1111/1440-1630.12682

Kittipimpanon, K., Amnatsatsue, K., Kerdmongkol, P., Maruo, S. J., & Nityasuddhi, D. (2012). Development and evaluation of a community-based fall prevention program for elderly Thais. *Pacific Rim International Journal of Nursing Research*, *16*(3), 222–235. https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5878

Kramer, B. J., Vivrette, R. L., & Rubenstein, L. Z. (2011). Engaging community-based organizations in fall prevention education. *Gerontology & Geriatrics Education*, *32*(2), 182–196. https://doi.org/10.1080/02701960.2011.572209

Lange, M., Silverman, M., Lenker, J., Hamlin, E., & Smith, R. O. (2024). Assistive technology devices and services in occupational therapy practice. *AJOT: American Journal of Occupational Therapy*, *78* (Suppl. 1), 1–16. https://doi.org/10.5014/ajot.2024.78S106

Linnerud, S., Kvæl, L. A. H., Bjerk, M., Taraldsen, K., Skelton, D. A., & Brovold, T. (2024). Feasibility of an implementation strategy for preventing falls in homecare services. *Implementation Science Communications*, *5*(1), 79. https://doi.org/10.1186/s43058-024-00615-7

Linnerud, S., Kvael, L. A. H., Graverholt, B., Idland, G., Taraldsen, K., & Brovold, T. (2023). Stakeholder development of an implementation strategy for fall prevention in Norwegian home care—A qualitative co-creation approach. *BMC Health Services Research*, *23*(1), 1390. https://doi.org/10.1186/s12913-023-10394-x

Mackenzie, L., Clemson, L., & Irving, D. (2020). Fall prevention in primary care using chronic disease management plans: A process evaluation of provider and consumer perspectives. *Australian Occupational Therapy Journal*, *67*(1), 22–30. https://doi.org/10.1111/1440-1630.12618

Montero-Odasso, M., van der Velde, N., Martin, F. C., Petrovic, M., Tan, M. P., Ryg, J., Aguilar-Navarro, S., Alexander, N. B., Becker, C., Blain, H., Bourke, R., Cameron, I. D., Camicioli, R., Clemson, L., Close, J., Delbaere, K., Duan, L., Duque, G., Dyer, S. M., & Freiberger, E. (2022). World guidelines for falls prevention and management for older adults: a global initiative. *Age and Ageing*, *51*(9), 1–36. https://doi.org/10.1093/ageing/afac205

Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*(1), 143. https://doi.org/10.1186/s12874-018-0611-x

Nilsen, P. (2024a). The historical background of implementation science. In P. Nilsen (Ed.), *Implementation science: Theory and application* (1st ed.). Routledge. https://doi.org/10.4324/9781003318125-3

Nilsen, P. (2024b). A taxonomy of theories, models and frameworks in implementation science. In P. Nilsen (Ed.), *Implementing science: Theory and application* (1st ed.). Routledge. https://doi.org/10.4324/9781003318125-5

Peters, M. D. J., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., McInerney, P., Godfrey, C. M., & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBI Evidence Synthesis*, *18*(10), 2119–2126. https://doi.org/10.11124/jbies-20-00167

Pighills, A. C., Torgerson, D. J., Sheldon, T. A., Drummond, A. E., & Bland, J. M. (2011). Environmental assessment and modification to prevent falls in older people. *Journal of the American Geriatrics Society*, *59*(1), 26–33. https://doi.org/10.1111/j.1532-5415.2010.03221.x

Pighills, A., Tynan, A., Furness, L., & Rawle, M. (2019). Occupational therapist led environmental assessment and modification to prevent falls: Review of current practice in an Australian rural health service. *Australian Occupational Therapy Journal*, *66*(3), 347–361. https://doi.org/10.1111/1440-1630.12560

Pollock, D., Peters, M. D. J., Khalil, H., McInerney, P., Alexander, L., Tricco, A. C., Evans, C., de Moraes, É. B., Godfrey, C. M., Pieper, D., Saran, A., Stern, C., & Munn, Z. (2023). Recommendations for the extraction, analysis, and presentation of results in scoping reviews. *JBI Evidence Synthesis*, *21*(3), 520–532. https://doi.org/10.11124/JBIES-22-00123

Salari, N., Darvishi, N., Ahmadipanah, M., Shohaimi, S., & Mohammadi, M. (2022). Global prevalence of falls in the older adults: A comprehensive systematic review and meta-analysis. *Journal of Orthopaedic Surgery and Research*, *17*, 334. https://doi.org/10.1186/s13018-022-03222-1

Somerville, E., Yan, Y., & Stark, S. (2024). A Process evaluation of a fall prevention intervention using the RE-AIM framework. *OTJR: Occupational Therapy Journal of Research*, *44*(2), 278–286. https://doi.org/10.1177/15394492231182398

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, *169*(7), 467–473. https://doi.org/10.7326/M18-0850

Tynan, A., Pighills, A., White, W., Eden, A., & Mickan, S. (2023). Implementing best practice occupational therapist-led environmental assessment and modification to prevent falls: A qualitative study of two regional and rural public health services in Australia. *Australian Occupational Therapy Journal*, *70*(2), 202–217. https://doi.org/10.1111/1440-1630.12849

van Haastregt, J. C. M., van Rossum, E., Diederiks, J. P. M., de Witte, L. P., Voorhoeve, P. M., Crebolder, H. F. J., van Haastregt, J. C. M., van Rossum, E., Diederiks, J. P. M., de Witte, L. P., Voorhoeve, P. M., & Crebolder, H. F. J. M. (2002). Process-evaluation of a home visit programme to prevent falls

and mobility impairments among elderly people at risk. *Patient Education and Counseling*, *47*(4), 301–309. https://doi.org/10.1016/s0738-3991(02)00003-4

van Scherpenseel, M. C., te Velde, S. J., Veenhof, C., Emmelot-Vonk, M. H., & Barten, J. A. (2023). Contextual determinants influencing the implementation of fall prevention in the community: A scoping review. *Frontiers in Health Services*, *3*, 1138517. https://doi.org/10.3389/frhs.2023.1138517

Vandervelde, S., Bosch, N. V. d., Vlaeyen, E., Casterlé, B. D. d., Flamaing, J., Belaen, G., Tuand, K., Vandendriessche, T., & Milisen, K. (2024). Determinants influencing the implementation of multifactorial falls risk assessment and multidomain interventions in community- dwelling older people: A systematic review. *Age and Ageing*, *53*(7), 1–13. https://doi.org/10.1093/ageing/afae123

Vandervelde, S., Dierckx de Casterle, B., Vlaeyen, E., Flamaing, J., Valy, S., Belaen, G., & Milisen, K. (2025). Context makes a difference: A qualitative study exploring how to implement a multifactorial falls prevention intervention in the community. *BMC Public Health*, *25*(1), 485. https://doi.org/10.1186/s12889-025-21561-6

Vandervelde, S., Vlaeyen, E., de Casterlé, B. D., Flamaing, J., Valy, S., Meurrens, J., Poels, J., Himpe, M., Belaen, G., & Milisen, K. (2023). Strategies to implement multifactorial falls prevention interventions in community-dwelling older persons: A systematic review. *Implementation Science*, *18*(1), 4. https://doi.org/10.1186/s13012-022-01257-w

Vlaeyen, E., Etienne, J., Geeraerts, A., Leysens, G., Dejaeger, E., & Milisen, K. (2016). Beleidsaanbevelingen omtrent de implementatie van val- en fractuurpreventie bij thuiswonende ouderen [Policy recommendations for the implementation of fall and fracture prevention in community-dwelling older persons]. *Tijdschrift voor Gerontologie en Geriatrie*, *47*(4), 164–171. https://doi.org/10.1007/s12439-016-0186-0

Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., Proctor, E. K., & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: Results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science*, *10*(1), 109. https://doi.org/10.1186/s13012-015-0295-0

Wen Koh, V. J., Matchar, D. B., Chan, A. W. M., Lee, J. M. L., Lai, W. X., Rosario, D., George, A., Ho, V., Ismail, N. H. B., Lien, C. T. C., Merchant, R. A., Tan, S. M., Wong, C. H., & Xu, T. (2023). Reducing falls among community-dwelling older adults from clinicians' perspectives: A systems modeling approach. *Innovation in Aging*, *7*(7), igad077. https://doi.org/10.1093/geroni/igad077

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