Evaluating the impact of a falls prevention community of practice in a residential aged care organisation

Jacqueline Francis-Coad

The University of Notre Dame Australia

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Appendix A:

Co-Author Signed Consent Forms

Paola Chivers

Re: published articles and articles under review in thesis
I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Dr Paola Chivers
Signature of co-author:
Date: 12/08/2016

Deborah Nobre

Re: published articles and articles under review in thesis
I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Deborah Nobre
Signature of co-author:
Date: 11/08/2016
### Nicole Blackburn

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: **Nicole Blackburn**

Signature of co-author:  

Date: *15/8/16*

### Chiara Naseri

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: **Chiara Naseri**

Signature of co-author:  

Date: *16/8/16*
Anne-Marie Hill

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Anne-Marie Hill

Signature of co-author: 

Date: 15/8/16

Terry Haines

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author:

Prof Terry P Haines

Signature of co-author: 

Date: 7th September 2016
Christopher Etherton-Beer

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: C D Etherton-Beer

Signature of co-author: [Signature]

Date: 11 Aug 2016

Caroline Bulsara

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Caroline Elizabeth Bulsara

Signature of co-author: [Signature]

Date: 11th August, 2016
Jo-Aine Hang

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Jo-Aine Hang
Signature of co-author: 
Date: 22/8/2016

Elissa Burton

Re: published articles and articles under review in thesis

I consent to the inclusion of papers I co-authored in this thesis submitted by Jacqueline Francis-Coad and accept the declaration made by the author.

Name of co-author: Elissa Burton
Signature of co-author: 
Date: 8 September 2016
Appendix B:

Published Manuscript

(JBI Database of Systematic Reviews
and Implementation Reports)

Contributing to Chapter 2

Title

The Effect of Complex Falls Prevention Interventions on Falls in Residential Aged Care Settings: A Systematic Review Protocol

Background

Falls in the residential aged care [RAC] sector are a major concern worldwide with rates reported to range between 3-13 falls per 1000 bed days. The estimated incidence of injurious falls in Australian aged care facilities in 2009-10 was 8,352 per 100,000 population; this is six times higher than the age-standardized rate of falls for older people living in their own home. For the older person, falling can result in loss of independence and confidence, physical injury such as fracture, reduced quality of life and in some cases mortality. Consequently there are additional resident care and rehabilitation requirements for RAC staff and RAC organizations to manage together with an increased economic burden for the health care system.

The cause of most falls is complex involving combinations of risk factors presenting at the time of the fall event. Older people residing in aged care facilities are recognized as a high falls risk population due to the frequent presence of many of these risk factors, including activities of daily living (ADL) disability, cognitive and visual impairments, multiple medications and reduced strength and balance. A European study of 57 long term care homes with over 4000 residents observed cognitive impairment in 68% of residents and ADL disability in 81.3%, suggesting that older people in residential care are particularly vulnerable when it comes to falls and often lack the capability to prevent falling without prompting or assistance. Falls prevention is challenging as it involves a number of interacting components making both intervention and evaluation complex. Researchers have trialed a range of different intervention approaches in addressing falls among this older population from single strategies implemented by individuals to multifactorial approaches delivered by a multidisciplinary staff.

Two recent meta analyses examining falls prevention programs in RAC populations showed different findings; the Cochrane review concluded that supplementing residents with low vitamin D levels reduced the rate of falls by 37% (95% CI 0.46–0.86) but not an individual’s risk of falling whilst Vlaeyen et al reported that fall prevention interventions decreased the number of people with recurrent falls by 21% (95% CI 0.65-0.97). However these reviews focused on individual or multifactorial approaches at the clinical level and inclusion criteria differed; the former included some mixed population studies whilst the latter included only nursing home populations and randomized or cluster randomized controlled designs.

Randomized designs are a challenge in this RAC population for several reasons. High levels of cognitive impairment make consent an issue, thus in RAC settings approximately 49% of residents are recruited and by 12 months 16% are lost, largely due to mortality. Adherence to interventions can also vary considerably, for example, 11-83% for multifactorial interventions and by 12 months only a third of those in residential care were likely to be still adhering to interventions. This suggests that results from RCTs in RAC populations must also be interpreted with caution; therefore other designs that are flexible and inclusive may also provide useful evidence.
Implementing falls prevention evidence based practice into a RAC setting predominantly requires staff to master the content of such a program and apply it to the care of the residents. Whilst the capacity to deliver system wide approaches to address complex issues, such as effective falls prevention, is strongly influenced by an organization’s managerial direction and culture, which in turn must support change. This requires connections between managers, staff and researchers to deliver effective policy through interdisciplinary problem solving, discussion and staff behavioral change. Consequently some researchers have suggested that organizations need to make changes at multiple levels using a systematic approach to enable evidence to be translated into practice. Interventions that are delivered across multiple levels have been characterized as complex because a number of groups and organizational levels are being targeted. For falls prevention interventions delivered in RAC settings these levels can be categorized as: resident, RAC facility and RAC organization and if at least two or all of these levels are targeted then the intervention can be considered complex. Resident level describes intervention delivery involving resident participation, such as the resident undertaking an exercise program or having a medication review. Facility level delivery describes interventions that target RAC staff, such as giving staff falls prevention education or undertaking safety maintenance on patient equipment. Organization level describes interventions involving RAC management participation in bringing about practice change such as revising professional staff roles and reviewing policy around falls prevention. A limited number of studies have evaluated complex multi-level interventions that included elements that addressed aspects of organizational change including staff training, reassignment of staff roles and adoption of best practice at a facility level. Such studies include; a participatory action research design that trained a falls resource nurse to lead the implementation of evidence based strategies resulting in a reduction in the proportion of fallers in RAC facilities whilst a falls management program targeting cultural change and quality improvement had no effect on falls. Another study, led by a falls coordinator, used tailored falls risk management delivering best practice interventions found that falls rates increased in similar RAC settings. These variations in results hence lead to uncertainty about the effectiveness of such approaches.

A preliminary search of the The Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, latest issue), The JBI Database of Systematic Reviews and Implementation Reports (JBI-SRIR), MEDLINE and CINAHL found no existing systematic reviews on this topic. PROSPERO lists an ongoing systematic review of studies that identify factors that may complicate or facilitate falls prevention implementation at program level in RAC facilities rather than comparison of the effect of complex multi-level organization wide interventions. To our knowledge there are no recent systematic reviews either published or underway that synthesize the evidence for effectiveness of complex interventions to falls prevention for the RAC population. The absence of synthesized best available evidence for multi level organization wide approaches to falls prevention in the RAC setting justifies this current review. Given that clinicians and falls researchers are now undertaking and evaluating these complex multi-level interventions there is a need to know how effective they are at reducing falls outcomes.

**Review objective**

The objective of this review is to synthesize the best available evidence for the effectiveness of complex falls prevention interventions, implemented at two or more of the following levels: organization, facility or resident, on falls in the residential aged care population.

**Review question**

What is the effect of complex falls prevention interventions on falls in RAC settings?

**Keywords**

Falls prevention; residential aged care; implementation; intervention; organization approach
Inclusion criteria

Types of participants
This review will consider all studies that include people aged 65 years of age or older. Studies that describe people who are less than 65 years of age will be included if the mean age of the group is over 65 years. Studies will be considered for inclusion if they were conducted in long-term care settings where older people are provided with 24-hour supervision and/or care assistance.

Studies will be excluded if they are conducted in a setting that was community-based, assisted living in retirement communities, retirement homes, continuing care retirement centers, a palliative care facility, transition care or in a hospital. It has been found by other falls researchers that the participant characteristics and the environment differ between these settings and hence require different falls prevention interventions.

Types of intervention(s)/phenomena of interest
This review will consider studies that evaluate complex falls prevention interventions which are delivered across at least 2 or all of the following levels: residents, RAC facility and RAC organization. Interventions may include multiple or multifactorial falls prevention interventions delivered by single discipline or multidisciplinary staff teams, collaborative teams, clinical networks or communities of practice. For example residents may receive vitamin D supplementation and hip protectors, the facility may provide falls prevention education for staff and the organisation may revise its professional staff roles to lead falls prevention change.

Comparators
Comparisons of intervention complexity by delivery level i.e. whether the interventions were delivered at resident, facility and/or organization levels will be included. This review will consider studies that offer no comparison, a passive comparison (such as no treatment, standard care), or an active comparison (such as variation of the intervention).

Types of outcomes
Studies will only be included in this review if an outcome measure related to falls prevalence is used. The outcome measures must be measured before and after the investigated intervention. Outcome measures related to falls prevalence may include the rate of falls (expressed as the number of falls per 1000 occupied bed days), the number of participants who became fallers (expressed as the number of participants who fell) and the rates of injurious falls (expressed as the number of falls with injury per 1000 occupied bed days).

Studies that measure falls as secondary outcome measure will be included if they provide data where the falls rate can be calculated.

Types of studies
This review will include any experimental study design that incorporates randomized controlled trials, controlled clinical trials and experimental studies where randomization has been used. In the absence of these methods, comparative studies without randomization, cohort and case control studies and quasi-experimental studies with a pre post design will be considered for inclusion. Studies will only be included if they use repeated measures and compare an intervention against standard treatment, no treatment or another intervention.
Search strategy

This review aims to find both published and unpublished studies, written in English from January 1 1990 to May 31 2016. The phenomena of interest, which is the incidence of falls in RAC settings, began to be addressed in published studies from around 1990. Falls prevention strategies which involve concepts to engage healthcare organizations and employees in improving outcomes were also conceived after 1990, hence the selection of the search date parameter.31 A three-step search strategy will be used when undertaking this review. An initial limited search of MEDLINE (Pubmed) and CINAHL Plus with full text (EBSCO) using initial key words will be undertaken with the aim of identifying all possible key words from the text words contained in the title and abstract of the retrieved literature. A second extensive search using all key words identified and terms will then be carried out across all included databases. Thirdly, the reference list of all identified literature will be searched for additional studies not previously identified during the first or second search strategy.

The databases to be searched include The Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, latest issue), JBI-SRIR, MEDLINE, CINAHL, EMBASE, AMED and Psych INFO. The search for unpublished studies will include an electronic search of trials registers; Current Controlled Trials (http://www.controlled-trials.com), the National Institute of Health Clinical Database (http://clinicaltrials.gov), Universal Index of Doctoral Dissertations in Progress, Mednar, Grey Literature Report and Google. All studies identified during the database search will be retrieved and examined to ensure relevance and that they meet the inclusion criteria using the title, abstract and description/MESH heading by two independent reviewers. If the two independent reviewers disagree on whether a study should be included, a third independent reviewer will be consulted until a consensus has been reached.

Assessment of methodological quality

Papers selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardized critical appraisal instruments from the Joanna Briggs Institute Meta-Analysis of Statistics Assessment and Review Instrument (JBI-MASTARI) (Appendix I). Data will be extracted and quality assessed by one reviewer and checked by a second reviewer with discrepancies resolved by discussion and arbitration with another reviewer if necessary. The process of including studies will be illustrated in a PRISMA flow chart.32

Data extraction

Quantitative data will be extracted from the retrieved papers by two independent reviewers using the standardized data extraction tools from the JBI-MASTARI (Appendices I & II). The data extracted will include details about the interventions, populations, study methods and outcomes of significance to the review objective.

Data synthesis

Quantitative data will, where possible, be pooled in statistical meta-analysis using Rev-Man.32 All results will be subject to double data entry. Statistical analysis will be carried out for primary outcomes wherever possible using the inverse variance method. All studies will be analyzed in terms of primary outcomes where data are available regardless of their settings or combinations of intervention. Pooled risk ratios (RR) with 95% confidence intervals (CI) will be calculated using a random effect model as the authors may be uncertain of the
homogeneity of RAC populations and setting of studies. Rate ratios will be pooled comparing: (i) rate of falls; (ii) the number of residents who became fallers; (iii) rate of injurious falls. Heterogeneity will be assessed statistically using the standard Chi-square. Where statistical pooling is not possible the findings will be presented in narrative form including tables and figures to aid in data presentation where appropriate.

Conflicts of interest
None to be declared.

Acknowledgement
JFC and AMH were responsible for conceptualizing and drafting the protocol CEB, DN and CN provided iterative reviews contributing to the protocol development. This study is supported through the Australian Government’s Collaborative Research Network (CRN) program awarded to The University of Notre Dame Australia. Jacqueline Francis-Coad is a doctoral candidate supported by the award.

References
### JBI Critical Appraisal Checklist for Randomised Control / Pseudo-randomised Trial

**Reviewer** .............................................. **Date** ..............................................

**Author** .............................................. **Year** .... **Record Number** ....

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<td>2. Were participants blinded to treatment allocation?</td>
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<td>3. Was allocation to treatment groups concealed from the allocator?</td>
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<td>4. Were the outcomes of people who withdrew described and included in the analysis?</td>
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<td>5. Were those assessing outcomes blind to the treatment allocation?</td>
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<td>6. Were the control and treatment groups comparable at entry?</td>
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<td>7. Were groups treated identically other than for the named interventions</td>
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<td>8. Were outcomes measured in the same way for all groups?</td>
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<td>9. Were outcomes measured in a reliable way?</td>
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<td>10. Was appropriate statistical analysis used?</td>
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**Overall appraisal:** Include □ Exclude □ Seek further info. □

**Comments (Including reason for exclusion)**

________________________________________________________________________

________________________________________________________________________
## JBI Critical Appraisal Checklist for Comparable Cohort/Case Control

**Reviewer**  
**Date**  
**Author**  
**Year**  
**Record Number**

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<th>No</th>
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<td>4. Are confounding factors identified and strategies to deal with them stated?</td>
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<td>5. Are outcomes assessed using objective criteria?</td>
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<td>6. Was follow up carried out over a sufficient time period?</td>
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<td>7. Were the outcomes of people who withdrew described and included in the analysis?</td>
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<td>8. Were outcomes measured in a reliable way?</td>
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**Overall appraisal:**  
- Include [ ]  
- Exclude [ ]  
- Seek further info. [ ]

**Comments (Including reason for exclusion)**

________________________________________

201
### JBI Data Extraction Form for Experimental / Observational Studies

**Reviewer**  
**Date**  

**Author**  
**Year**  

**Journal**  
**Record Number**  

**Study Method**  
- [ ] RCT  
- [ ] Quasi-RCT  
- [ ] Longitudinal  
- [ ] Retrospective  
- [ ] Observational  
- [ ] Other  

**Participants**  

**Setting**  

**Population**  

**Sample size**  
- Group A  
- Group B  

**Interventions**  
- Intervention A  
- Intervention B  

**Authors Conclusions:**  

**Reviewers Conclusions:**  

### Study results

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#### Continuous data

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### Cochrane Central Registry of Controlled Trials

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**JBI Database of Systematic Reviews and Implementation Reports**

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*Note. ab = abstract, kw = keyword, MH = mesh heading, mp = multi-purpose, ti = title*

**Current Controlled trials**

“Falls prevention” = 37
National Institute of Health Clinical Database

Falls = 2
Falls + prevention = 23
Falls + nursing homes = 6

Universal Index of Doctoral Dissertations in Progress

“Falls” = 2

Mednar

“Prevent falls” = 86

Grey Literature Report (GreyLit.org)

“Falls” AND Prevent* = 45

Google

“Falls prevention in aged care” = 0
“Falls prevention in aged care facilities” = 0
“Falls prevention program” = 3
“Nursing home fall prevention” = 0

Citation mining

Reference lists of relevant articles = 9
## Appendix D:

### List of Studies Excluded from the Systematic Review with Reasons

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<td>Bouwen A, Lepeleire J, Buntinx F. Rate of accidental falls in institutionalised older people with and without cognitive impairment halved as a result of a staff-oriented intervention. <em>Age Ageing</em> 2008; 37: 306-10.</td>
<td>Intervention not broadly delivered at multiple levels. Falls outcome was a sub group of falls with medical consequences.</td>
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<td>Reason for exclusion</td>
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Appendix E:

Extraction of Data from Included Studies and Calculations for Meta-Analysis

Table E.1  Data extracted from RCTs (1)
Table E.2  Data extracted from RCTs (2)
Table E.3  Data extracted from quasi-experimental studies
Table E.4  Calculation of mean falls rates, mean difference, standard deviation and standard error for RCTs
Table E.5  Calculation of mean injurious falls rates, mean difference, standard deviation and standard error for RCTs
Table E.1  Data extracted from RCTs (1)

<table>
<thead>
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<th>Study/year</th>
<th>Follow-up</th>
<th>Sample size</th>
<th>Number of falls</th>
<th>Number of fallers</th>
<th>N = injurious falls</th>
<th>Overall rate (falls per 1000 bed days)</th>
<th>Overall rate (injurious falls / 1000 bed days)</th>
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<td>547 C</td>
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<td>261 C</td>
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Note. x= no data reported, I= intervention group, C= control group, Adj= adjusted

Table E.2  Data extracted from RCTs (2)

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<td>Dyer/2004</td>
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<td>0.49 (0.37, 0.65)</td>
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<td>x</td>
<td>x 1.12 (0.85, 1.47) Adj</td>
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<td>0.45(0.19,1.14)</td>
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Note. x= no data reported, I= intervention group, C= control group, Adj= adjusted
Table E.3  Data extracted from quasi-experimental studies

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<td>19/23#</td>
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Note. x= no data reported, #homes participating/non-participating, parenthesis denote control home data, *number residents in both phases, Adj= adjusted
### Table E.4  Calculation of mean falls rates, mean difference, standard deviation and standard error for RCTs

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<tr>
<th>Study/year</th>
<th>Days</th>
<th>Control</th>
<th>Intervention</th>
<th>Control</th>
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<th>SD</th>
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<td>Dyer et al / 2004</td>
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<tr>
<td>Kerse et al / 2004</td>
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<td>177</td>
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<td>McMurdoo et al / 2000</td>
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### Table E.5  Calculation of mean injurious falls rates, mean difference, standard deviation and standard error for RCTs

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<th>Control</th>
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<td>Ray et al 2005*</td>
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*Note. MD= mean difference, SD= standard deviation, SE= standard error
Appendix F:

Published Manuscript

(*Journal of Advanced Nursing*)

Contributing to Chapter 3

**PROTOCOL**

*Investigating the impact of a falls prevention community of practice in a residential aged-care setting: a mixed methods study protocol*

Jacqueline Francis-Coad, Christopher Etherton-Beer, Caroline Bulsara, Debbie Nobre & Anne-Marie Hill

Accepted for publication 13 June 2013

**Abstract**

**Aim.** The aim of this study was to facilitate the implementation and operation of a falls prevention Community of Practice in a residential aged-care organization and evaluate its effect on falls outcomes.

**Background.** Falls are a substantial concern across the residential aged-care sector with half its older population falling annually. Preventing falls requires tailoring of current evidence for reducing falls and adoption into daily activity, which is challenging for diversely skilled staff caring for a frailler population. Forming a community of practice could provide staff with the opportunity to share and develop their expertise in falls prevention and innovate change.

**Design.** A mixed methods design based on a realistic approach conducted across 13 residential care facilities (N = 779 beds).

**Method.** Staff will be invited to become a member of the community of practice with all sites represented. The community of practice will be supported to audit falls prevention activity and identify gaps in practice for intervention. The impact of the community of practice will be evaluated at three levels: individual member level, facility level and organizational level. A pre post design using a range of standardized measures supported by audits, surveys, focus groups and interviews will determine its effect on falls prevention practice. Falls outcomes will be compared at five time intervals using negative binomial regression and logistic regression. The study is funded 2013-2017.

**Conclusion.** Findings from this research will assist residential aged-care providers to understand how to effectively translate evidence about falls prevention into clinical practice.

**Keywords:** allied health professionals, community of practice, falls prevention, nurses, residential aged-care, staff education
Introduction

Falls rates across the residential aged-care (RAC) sector are among the highest reported worldwide, therefore reducing the falls rates through the adoption of evidence-based falls prevention strategies is a global priority. Preventing falls for older people in residential aged-care facilities (RACF) may enable them to maintain their independence, enhance their well-being and sustain their quality of life. This study partners a university research team with staff and residents of a residential aged-care provider organization. This collaboration aligns with the Australian Government's national initiative of preventing falls among older people [National Public Health Partnership (NPHP) 2004, Lord et al. 2011].

Background

Falls are a substantial concern across the residential and long-term aged-care sector with half its population falling annually (Haralambous et al. 2010, Nyman & Victor 2011, Burland et al. 2013). Between 25-30% of falls among older people in residential aged care result in physical injury (Oliver et al. 2007, Burland et al. 2013) and are associated with an increased risk of mortality functional decline, depression and anxiety (Rubenstein 2006, Morley 2007, Oliver et al. 2007). Frail, older people who require nursing home care are at high risk of falls as they present with combinations of: multiple co-morbidities, age-related systems decline and cognitive impairment (Rubenstein 2006, Onder et al. 2012). Meta-analyses of studies investigating falls prevention in residential aged-care settings have found that the two strongest evidence-based interventions are, the supplementation of Vitamin D and medication review by a pharmacist (Bischoff-Ferrari et al. 2004, Cameron et al. 2012, Nazir et al. 2013). Multifactorial interventions incorporating staff education, resident exercise programmes and environmental modification show inconclusive outcomes in reducing falls rates indicating a problem exists [Cameron et al. 2012, National Institute for Health and Care Excellence (NICE) 2013]. Despite this, adopting a multifactorial approach to falls prevention is still considered as industry best practice in the absence of further specific evidence. It is also recognized that effective interventions for this population differ from community interventions (Cameron et al. 2012, Gillespie et al. 2012) because older people in RAC may have difficulty adopting falls prevention strategies independently (Oliver & Masud 2004, Rubenstein 2006, Oliver et al. 2007). This suggests that staff and healthcare systems providing care to this population need to play a significant proxy role in providing falls prevention intervention for those at risk.

Policy, processes and practices reflecting evidence-based falls prevention are required for implementation and adoption in the context of an RAC organization. This requires systematic enquiry, synthesis and adaptation to tailor relevant falls prevention knowledge for translation into practice (Graham et al. 2006, Haines & Waldron 2011, Tetere et al. 2011). However, undertaking this translation process in its entirety requires collaboration, research expertise, clinical and management skills all of which may not be present in the RAC workforce expected to undertake this process (Haines & Waldron 2011). The use of external falls prevention experts to implement change independently has been shown to reduce falls rates in the short term but following withdrawal the effect has not been sustained (Ray et al. 2005, Capezuti et al. 2007). Therefore, combining research expertise with workplace clinical experience could be a viable means of translating current falls prevention evidence into effective practice (Tolson et al. 2006, 2011, Fixsen et al. 2011).

An innovation that is yet to be applied to the problem of falls prevention in the RAC sector is the formation of a community of practice (CoP). A CoP is a group of like-minded people with a mutual interest in a topic who get together to share and develop their expertise and then innovate and facilitate change in pursuit of a common goal (Wenger 1998, Li et al. 2009, Gouliki et al. 2011, Rammuthugala et al. 2011b), in this case falls prevention. A CoP applied to a RAC setting could provide an opportunity to connect nurses, allied health staff, managers, residents and researchers in collaboration to action evidence-based best practice (Tolson et al. 2006, Rammuthugala et al. 2011b).
The study

Aims

The purpose of this research was to evaluate the impact of the falls prevention CoP on falls outcomes in a RAC setting by measuring:

- Changes in individual CoP member knowledge, motivation and confidence to champion falls prevention activities.
- Changes in implementation and adoption of falls prevention strategies at each participating RAC site measured simultaneously with falls rates, fall-related hospitalization rates and the proportion of residents falling.
- Changes in RAC organizational policy or systems supporting falls prevention.

Design and methodology

This study used a convergent, parallel mixed methods design across three phases (Creswell & Plano Clark 2007) based on a realist approach (Pawson & Tilley 1997) (Figure 1). The realist approach to evaluation has been used previously in health services research where a comprehensive understanding of complex interventions is required (Greenhalgh et al. 2009, Rycroft-Malone et al. 2010, Williams et al. 2013). Realist evaluators seek to provide not just a descriptive profile of an intervention’s outcomes, but also to identify more comprehensively, ways these interventions are influenced by current conditions (contexts) in triggering (mechanisms) the observed outcomes (Pawson & Tilley 1997, Ramlan et al. 2011a, Hewitt et al. 2012). These context mechanism outcome (CMO) configurations serve as a framework for identifying what works (or not) for whom, how and under what conditions. Early stakeholder participation, in our case, the RAC organization staff and researcher team steering committee, via meetings, emails and telephone contact assisted the development of potential CMO configurations (see Table 1). The potential CMO’s have been scoped broadly to guide qualitative and quantitative data collection but can be readily adapted to construct emergent CMO associations from research findings (Ramlan et al. 2011a, Williams et al. 2013).

Participants, setting and recruitment

This study will partner university researchers with staff members across a not-for-profit RAC provider organization with 13 geographically diverse sites in metropolitan Western Australia. The RAC organization provides care for 779 older people with a mean age of 80-66 years. There is approximately 1185 full- and part-time care staff members.

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Figure 1. Mixed methods data collection overview (adapted by Creswell & Plano Clark 2007).
Table 1 Potential context mechanism: outcome associations.

<table>
<thead>
<tr>
<th>Contents</th>
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<tbody>
<tr>
<td>RAC organizational culture</td>
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<tr>
<td>RAC site leadership</td>
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<td>RAC site environmental infrastructure</td>
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<tr>
<td>Resident care Level (dependence/independence)</td>
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<td>CoP characteristics</td>
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<td>Staff characteristics</td>
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<tr>
<td>Possible mechanisms</td>
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<td>CoP actions</td>
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<td>CoP activities</td>
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<td>CoP member behaviours</td>
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<tr>
<td>Outcomes proposed</td>
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<tr>
<td>Changes in resident falls rates and fall-related hospitalization rates</td>
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<td>Changes in adoption of falls prevention strategies</td>
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<td>Changes in staff confidence and motivation to address falls prevention strategies</td>
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<td>Changes in the environment (that affect resident falls risk)</td>
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<td>CoP can achieve maturity through member participation and collaboration</td>
</tr>
</tbody>
</table>

RAC, residential aged-care; CoP, community of practice.

across each of the 13 RAC sites; a care manager leads sites and staff includes nursing (practitioners, clinical specialists, registered, enrolled and assistants) and allied health professionals. A separate corporate office provides centralized support for all sites such as human resources, clinical and quality control departments and information technology (IT). Commitment to this partnership is endorsed by the organization’s CEO and General Managers.

Outcome measures and evaluation

In this study the impact of the falls prevention CoP will be evaluated at three levels: (1) At an individual member level we will measure changes in their knowledge, confidence and motivation to champion falls prevention activities and confidence in using IT for communication; (2) At the facility level we will measure changes in implementation and adoption of falls prevention strategies in conjunction with falls rates and fall-related hospitalization rates; (3) At the organizational level we will describe changes in policy or systems supporting falls prevention (Figure 2).

Data collection and procedure

Phase 1

A steering committee comprising research and service provider representatives from nursing and allied health will be formed to discuss CoP formation, operation and study logistics. An RAC organizational member of staff will be assigned part of their managerial role as the CoP facilitator and study liaison person with the university researchers. All staff members expressing an interest in falls prevention currently part of the organization’s workforce will be invited to volunteer as CoP members, with a minimum of one representative from each of the organization’s sites. The organization’s staff members, residents and built environment will be the recipients of the falls prevention activities implemented by the CoP. To overcome geographical separation, CoP members will pilot the use of the organization’s intranet to communicate on a regular basis supported by approximately three face to face meetings annually. All staff members nominating as CoP members will complete a range of questionnaires to gather demographic information and to explore their knowledge, confidence and motivation about falls prevention practice and confidence in using IT for communication. Researcher and CoP facilitator documented observations will inform evaluation and modify CoP operation as required across the duration of the study. CoP members will repeat these measures at the end of the study period. Additional documents will be used to describe CoP formation and operation including stakeholder steering committee meeting minutes, CoP discussion transcripts, emails and the researcher and CoP facilitator observation journals.

Phase 2

Evaluating current falls prevention activity and comparing it with evidence-based guidelines (Australian Commission on Safety & Quality in Healthcare 2009, Cameron et al. 2012, National Institute for Health and Care Excellence (NICE) 2013) will identify gaps in practice for targeted intervention. The CoP will therefore be supported to com-
JAN: PROTOCOL

uct a scoping audit across all RAC sites using a validated tool. CoP members will co-ordinate audit completion at their RACF site assisted by site staff members, including those with an awareness of policies and practices in each facility, such as care managers, nurses and allied health professionals. Discussions with other RACF staff members such as nursing and allied health assistants, cleaners, laundry and maintenance staff members may also contribute to establishing whether everyday practices reflect current policies. The selected audit tool will address domains such as falls risk assessment, falls and falls injury prevention interventions, the environment, falls and falls injury prevention staff training and information for residents. After analysis of all audits, The CoP will then discuss the prepared report of the audit findings, reflecting current falls prevention activity, to determine the areas for development and intervention. Repeating this audit at the conclusion of this study will enable the comparison of changes in falls prevention activity across the RACF sites following CoP determined interventions.

Findings from the scoping audit will be discussed and prioritized in terms of actioning by the CoP, taking into account their available resources. Actioning falls prevention activities will firstly involve the CoP members disseminating information to multidisciplinary staff groups at their facility (Anderson et al. 2012). Subsequently the CoP’s actioning of falls prevention activities will be measured using an appropriate series of methods such as questionnaires, focus groups and interviews reflecting the diversity of practice in providing clinical care.

A quasi-experimental pre/post design will be adopted for determining the quantitative outcomes of interventions addressed by the CoP at each site and across all sites. Appropriate standardized tools will be selected to measure changes in falls outcomes dependent on the area of need defined by the CoP. This will be guided by the findings of the scoping audit and therefore cannot be pre-determined. However, possible CoP falls prevention activities are likely to take a multifactorial approach that includes the staff members, the residents and the environment. Examples may include: Staff intervention through the development of a mandatory falls prevention education and training package informed by a survey of care staff. Resident intervention through the administration of Vitamin D supplementation via Nurse Practitioner, GP and Pharmacist liaison and the environment may be modified to minimize hazards and maximize resident safety (Figure 3). All CoP falls prevention activity is likely to involve RAC policy and practice development or modification and resource creation to facilitate the adoption of falls prevention activities.

Figure 3 An example of a possible CoP intervention in each interactive domain of falls prevention.

Specifying the intervention context, measuring the proposed outcomes and identifying trigger mechanisms will determine what CoP facilitated falls prevention activities worked, for whom, how and under what conditions in the RAC organization.

The establishment of a community through connections between its members and knowledge flow through the community will be recorded by the organization’s intranet platform. Frequent communication, interaction and knowledge exchange between members are characteristics associated with CoPs. A social network analysis (SNA) will be undertaken to examine the relationships, connections and flow of knowledge in the CoP, as the behaviour of the CoP is likely to be influenced by its structure and the characteristics of its members. The exchange between members on the CoP intranet discussion board and CoP facilitator emails will provide frequency counts representing CoP member activity and connectivity. The presence and strength of these connections may assist in comprehending which features of the CoP relate to improvement in falls prevention activity and tacit knowledge exchange (Rammuthugala et al. 2011a, Gainforth et al. 2014, Youssefi-Nooriaie et al. 2014).

Falls outcomes
A prospective quasi-experimental pre post design will measure falls rates, falls related hospitalization rates and the proportion of older people sustaining one or more falls. Falls rates across 2 years will be compared with rates at baseline and at six monthly intervals. As this is a quasi-experimental design, the CoP is considered an intervention at organizational level. Consistent with international recom-
mandations for a common outcome data set for falls injury prevention trials, the definition of falls by Lamb et al. (2005) will be adopted by this study:

an unexpected event in which an individual comes to rest on the ground, floor or lower level.

Falls data will be collected from the organization’s electronic clinical record system that records all reported falls by staff members at RACFs. The organization also records all falls that require a transfer to hospital due to injury sustained from a fall. These data will also be collected from the organization’s electronic clinical record system for the duration of the study. Falls rates and falls related hospitalization rates will be reported as falls/1000 resident bed days. Bed days of care (calculated using the facility census ie number of beds occupied across 30 days) will represent the denominator and number of falls the numerator multiplied by 1000. As residents of the participating aged-care facilities may remain in the study for varying lengths of time due to death, hospital admission or discharge, the probability of falling will be calculated relative to the duration they were exposed to the risk of falling.

Falls prevention activities and falls outcomes will be measured by CoP members in conjunction with the RAC organization’s staff members. The researcher will provide the falls prevention expertise and links to external falls prevention experts as required through participation in the CoP and will be responsible for evaluating the CoP on the three levels previously described.

Phase 3
Organizational falls prevention management such as policies or quality improvement systems will be reviewed as part of the audit process described in phase two. Different types of organizational documents will be scrutinized including policy documents, practice manuals and meeting minutes by benchmarking against current evidence and clinical guidelines (Australian Commission on Safety & Quality in Healthcare 2009, Cameron et al. 2012, National Institute for Health and Care Excellence (NICE) 2013).

Data analysis
Quantitative
Data drawn from surveys and audits throughout phases one to three will be allocated a value representing a category such as gender, first language and type of exercise offered. A 5-point Likert scale will be used to measure subjective variables such as attitudes, beliefs, confidence and motivation through extent of agreement to the responses generated. Categorical response items used to measure engagement in falls prevention activities will be analysed using non-parametric methods where required. Both nominal and ordinal data from surveys and audits will be entered into the SPSS statistical software package version 22 IBM SPSS Statistics. Parametric data will be described as means, frequencies and percentages and non-parametric data will be described as medians, interquartile ranges and displayed in tables. Frequency analyses cross comparisons between facilities will be undertaken. Relationships between variables will be examined between two or more sets of responses and cross tabulations and contingency tables used where appropriate (Portney & Watkins 1993, Punch 2003). Survey results will be presented in reports using bar graphs and tables.

Falls incident data will be collected at five time points in six monthly intervals over 2 years (Table 2) and analyses completed using recommended methods for falls data (Lamb et al. 2005, Robertson et al. 2005). Falls outcomes (falls and fall-related hospitalization rates per 1000 resident days, proportion of residents falling) will be compared between baseline and at 2 years after the introduction of the CoP using negative binomial regression (falls rates) and logistic regression (proportion of residents falling) with

<table>
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<th>Table 2</th>
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<td>Falls outcome data 1*</td>
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<tr>
<td>CoP feasibility study</td>
<td>Falls outcome data 2*</td>
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<tr>
<td>Member activity reports</td>
<td>CoP falls prevention activity audit</td>
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<td>Member final survey</td>
<td>Falls outcome data 3*</td>
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<tr>
<td>Semi-structured interviews</td>
<td>CoP falls prevention activities targeting resident/staff/environment</td>
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</table>

* Falls outcome data 1-5 include falls rates, fall-related hospitalization rates and proportion of residents falling.

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adjustment for age, presence of dementia and age-related funding instrument (ACFI) care rating with the results presented as incident rate ratios and odds ratios with 95% confidence intervals and a \( P < 0.05 \) will be considered significant.

The SNA will use software such as UCI-Net; this allows visual examination of each of the relationships in question, in our study these will be CoP member interactions and knowledge flow through frequency counts (Ramamurthigala et al. 2011a, Yousefi-Nooraie et al. 2014). Results will be presented as matrices or graphs.

**Qualitative**

Interview or focus group digital recordings will be transcribed verbatim. Open-ended qualitative responses from questionnaires, researcher observation journal and all CoP documentation will be scrutinized by the primary researcher (JFC) and second researcher (AMH). Responses seeking further categorical information, such as other types of exercise programs provided, will be subjected to content analysis. Data will be extracted on the number and frequency of categories identified in each document. All other responses will be coded and thematically analysed by two researchers and arbitrated by a third researcher based on the realist framework of context, mechanisms and outcome configurations (Pawson & Tilley 1997, Williams et al. 2013). The analysis of the qualitative data will be assisted by the data management software package QSR NVivo 10 for windows. A reflective, iterative process to determine common repeated patterns of meaning or themes across responses will be undertaken (Miles et al. 2014) and interpreted within the realist framework (Pawson & Tilley 1997). CoP communication transcripts and observations from researcher and CoP facilitator study journals will be used to inform the survey and interview data. Questionnaires will be administered as previously described in phase one.

**Data integration.** The reduced qualitative data will be integrated with the quantitative data across phases one to three to aid explanation and to holistically present the results of the study (Creswell & Plano Clark 2007).

**Ethics**

Researchers from the University have formed a partnership with the RAC organization to ensure that research priorities and study design are in keeping with the philosophy of the RAC organization. Approval has been granted from the organization for the study to be conducted as part of their continuous quality improvement priorities. Ethical approval from the university human ethics committee (HREC) has been granted for the first phase of the research. Subsequent phases of study will request further HREC approvals as undertaken in phase one. All individual participation will be voluntarily sought following the presentation of verbal and written information to participants. Written consent to participate will be obtained from all who volunteer, with participants being free to withdraw from the study at any time.

**Validity and reliability/riigour**

Health service research is increasingly using both quantitative and qualitative methods in research designs seeking answers to complex problems, such as preventing falls in older people. This integration of complementary methodologies has many advantages in that it can enhance confirmation or corroboration of varying methodologies via triangulation; elaborate or develop analyses, provide richer detail; and initiate new lines of thinking through attention to convergent and divergent findings (Robertson & Wilson 1983, Onwuegbuzie & Leech 2005). Credibility will be demonstrated through the participation of two independent researchers in the thematic analysis of all qualitative data. Any disagreement will be resolved by discussion with a third researcher. Member checking, a process where participants are provided with opportunity to verify or change the researcher interpretations of collected data (e.g. interview and CoP discussion transcripts) to ensure they have been truly represented, will be undertaken (Creswell & Plano Clark 2007, Thomas & Magloire 2011). The primary researcher and CoP facilitator will keep a journal to record their observations and reflections regarding CoP member participation and evaluation ensuring the identification of any bias and actions to contain it. Confirmability will be established through the use of verbatim quotations to represent the voices of participants (Politi & Beck 2013). Dependability will be demonstrated through the provision of an audit trail enabling an external researcher to follow the decisions made and mapped by the study researchers. In our study this will be established by describing the purpose of the study, detailing the context, mechanism and outcome configurations of the complex intervention, describing how the data will be collected and analysed, presenting the evaluation findings in a coherent and logical style and reporting both processes and outcomes (Thomas & Magloire 2011). The primary researcher will be positioned on the fringes of the CoP providing support as required and con-
ncting the CoP members to falls prevention research evidence and other research experts.

Discussion
The problem of intervening to prevent falls in a residential aged-care organization is complex. The recipient population is older, frailer and more cognitively impaired compared with community dwelling older people. The staffs are diverse in skill-level and experience and may lack the expertise to translate falls prevention strategies into clinical practice. Individual organizational facilities are geographically diverse so there is potential for them to operate as silos and not benefit from each other’s workplace knowledge and expertise when dealing with similar complex problems. The culture in RAC organizations may also be lacking in terms of optimal communication, leadership and teamwork as perceived by their own staff members (Etherton-Beer et al. 2013). The representation of RACF staff members as part of a falls prevention CoP has the potential to enable communication, leadership, idea sharing and collaboration. In harnessing a community of individuals, as opposed to reliance on a single individual, the CoP may have a better chance to become the change agent for falls prevention activity through diverse perspectives and collaboration. The use of a CoP with links to a research team with relevant expertise may enable the translation of falls prevention evidence into clinical practice through tailoring for the local context. Measuring the impact of a CoP will also augment the current CoP literature. Study strengths include the use of the realist approach to enable the study findings to be robustly evaluated and determine what worked or didn’t work in the context of a RAC organization.

Limitations
Limitations include: the quasi-experimental pre post design but this will be strengthened by the mixed data collection from several sources. Falls data are known to be underreported in hospital systems when only using incident reporting systems which could mean that falls rates obtained may not reflect the total falls (Hill et al. 2010). However, we will also be measuring fall-related hospitalization rates for falls that are mandatory to report at RACPs.

Conclusion
To the best of our knowledge, there is no previous literature that clearly identifies and measures how a CoP could affect falls prevention and falls rates in a RAC organization. If successful, the actions implemented by a CoP have the potential to improve outcomes for residents in terms of independence and quality of life and empower organizational staff through improved policy and practice. The CoP could then become a value-adding aspect of the organization.

Acknowledgements
This research is supported by the Brightwater Care Group. The authors thank Brightwater staff, especially the clinical steering committee and the members of the Falls Prevention Community of Practice.

Funding
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Conflict of interest
No conflict of interest has been declared by the authors in relation to this study.

Author contributions
All authors have agreed on the final version and meet at least one of the following criteria [recommended by the IC-MJE (http://www.icmje.org/recommendations/)]:
• substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
• drafting the article or revising it critically for important intellectual content.

References

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Investigating a falls prevention community of practice


## Appendix G:

### CoP Member Baseline Survey

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<td><strong>INVESTIGATOR(s):</strong> Jacqui Francis-Coad and Dr Anne-Marie Hill</td>
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<td>By clicking on the link in the email sent to you by Tim Lo you have been brought to this site and are invited to take part in an online survey.</td>
</tr>
<tr>
<td><strong>What is the study about?</strong></td>
</tr>
<tr>
<td>This study aims to explore and describe the implementation of a falls prevention Community of Practice (CoP) in your residential aged care provider organisation. The findings from this survey will contribute to a larger research project that aims to investigate what effect operating a falls prevention CoP has on the rate of falls in the residential aged care population.</td>
</tr>
<tr>
<td><strong>What will I be asked to do?</strong></td>
</tr>
<tr>
<td>If you continue, you will be taken to the questionnaire. This questionnaire should take around fifteen to twenty minutes of your time to complete.</td>
</tr>
<tr>
<td><strong>Are there any risks associated with participating in this study?</strong></td>
</tr>
<tr>
<td>There are no foreseeable risks associated with this study.</td>
</tr>
<tr>
<td><strong>What are the benefits of the research study?</strong></td>
</tr>
<tr>
<td>The study will explore whether each CoP member can use the Brightwater intranet as an effective means of communication as this is imperative for collaboration. The baseline measures for CoP member perceived risk of falls, knowledge of falls and falls prevention strategies will be established for future comparison.</td>
</tr>
<tr>
<td><strong>Can I withdraw from the study?</strong></td>
</tr>
<tr>
<td>Participation in this survey is completely voluntary. If you agree to participate, you can withdraw from the survey at any time. However you cannot withdraw after you submit your survey, as surveys are non-identifiable.</td>
</tr>
<tr>
<td><strong>Will my results remain confidential?</strong></td>
</tr>
<tr>
<td>No one person will be identified in the survey results. The results will be presented collated/grouped from respondents. Responses will be stored securely in the School of Physiotherapy at The University of Notre Dame Australia for a period of five years.</td>
</tr>
<tr>
<td><strong>Will I be able to find out the results of the survey?</strong></td>
</tr>
<tr>
<td>We will email a summary of the survey to all those who receive this initial invite regardless of participation.</td>
</tr>
<tr>
<td><strong>Who do I contact if I have questions about the study?</strong></td>
</tr>
</tbody>
</table>
Please feel free to contact Jacqui or Anne-Marie if you have any questions.

jacqui.francis-coad@nd.edu.au
anne-marie.hill@nd.edu.au

What if I have a complaint or any concerns?
The study has been approved by the Human Research Ethics Committee at The University of Notre Dame Australia (approval number ). If participants have any complaint regarding the manner in which a research project is conducted, it should be directed to the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, research@nd.edu.au

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

I want to participate! How do I begin?
By clicking the link to begin you are indicating your consent to be a part of this project.

Yours sincerely,
Jacqui Francis-Coad
Dr Anne-Marie Hill
**Section 1 – Your details**

1. Please state your Code number in the box below:

2. Please state your gender (Tick one)
   - Female
   - Male

3. Using your age at your last birthday, which age bracket describes you? (Tick one)
   - <19 years
   - 20-29 years
   - 30-39 years
   - 40-49 years
   - 50-59 years
   - 60-69 years

4. What is the highest level of education you have completed? (Tick one)
   - Completed Year 10
   - Completed Year 12
   - TAFE Certificate III or IV
   - Graduate Certificate
   - Graduate Diploma
   - Bachelor Degree
   - Masters Degree
   - Other

   Other and / or overseas equivalent (please specify):
5. What is your current job role? (Tick one)
   - Care Manager
   - Registered Nurse
   - Enrolled Nurse
   - Personal Care Assistant
   - Physiotherapist
   - Occupational Therapist
   - Therapy Assistant
   - Other
   Other (please specify)

6. How many years experience do you have in your current job role, either at Brightwater or elsewhere? (Tick one)
   - <1 year
   - 1-2 years
   - 3-5 years
   - 6-10 years
   - >11 years

7. How long have you worked for Brightwater in your current job role? (Tick one)
   - <1 year
   - 1-2 years
   - 3-5 years
   - 6-10 years
   - >11 years

8. Do you work with residents (either directly or indirectly) who require (Tick as many as appropriate):
   - High level care
   - Low level care
   - Dementia specific care
9. What language do you mainly speak at home? (Tick one)
   ○ English (skip to question 10)
   ○ Other

Which other language? (please specify)

10. If you specified a language other than English in the previous question, do you have any difficulties communicating (i.e. speaking, reading or writing) in English? (Tick one)
   ○ Yes
   ○ No
   ○ Unsure

Would you like to comment further on your answer here?
Section 2 - Falls Prevention Community of Practice Communication

* 11. I use the following technologies: (Tick as many as appropriate)
   - Email
   - Internet
   - Social media (eg Facebook/Twitter etc)
   - Other
   Other (please specify)

* 12. I use the Brightwater intranet as part of my every day work practice (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

* 13. I have easy access (i.e. a computer that is available for your use) to the Brightwater intranet at my work site/facility (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree
* 14. I am confident to use the Brightwater intranet to communicate with other staff members (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

* 15. I have time to use the Brightwater intranet at my work site/facility for CoP participation (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

* 16. A BLOG is a personal web site or web page on which an individual records opinions on a regular basis.

   Have you ever used a blog to communicate? (Tick one)
   - Yes
   - No
   - Unsure

* 17. I feel confident to use a blog for communicating with other CoP members (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

18. Are there any anticipated difficulties in using the Brightwater intranet for CoP communication on which you would like to comment?
19. Is there anything you think would facilitate CoP communication using the Brightwater intranet on which you would like to comment?


20. What do you hope to gain by participating in this CoP?


### Section 3 – Falls and Falls Prevention

Some of the following questions require a response from your 'current understanding' to establish a baseline for future comparison. It is therefore important not to confide in others or look up information in pursuit of a better answer; all responses will be treated anonymously.

* 21. How would you define 'a fall'?  

* 22. Have you participated in falls prevention training in the past? (Tick one)  
   - Yes  
   - No (skip to Question 23)  
   - Unsure

23. If you answered 'Yes' to the previous question please briefly describe the training (e.g. internal – Brightwater seminar or External - 'Stay on your feet' workshop)

* 24. State the falls prevention strategies that you are aware of for your residents:  
   (note – there is no minimum or maximum number required in this list)
**25.** From your answer to the previous question, which falls prevention strategy would you rate as most effective?


**26.** I think falls are a problem in the residential aged care population (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree

**27.** I think falls are a problem across the Brightwater organisation (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree

**28.** I think falls are a problem at my work site/facility (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree

**29.** I am regularly informed (eg monthly reporting) of the number of falls or falls rates at my workplace/facility (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree
| * 30. A "FALLS CHAMPION" is a person who assumes a leadership role in raising awareness, actioning and evaluating falls prevention management in the work place. |

<table>
<thead>
<tr>
<th>I feel motivated to be a &quot;falls champion&quot; at my work site/facility (Tick one)</th>
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<table>
<thead>
<tr>
<th>* 31. I feel confident I could be a &quot;falls champion&quot; at my work site/facility (Tick one)</th>
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</table>
**32. I think representatives from the following groups of people could help me action falls prevention management at my work site/facility (Tick one response in each row)**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>Care Managers</td>
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<td>Nurses</td>
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<td>Personal Care Assistants</td>
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<td>Physiotherapists</td>
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<td>Occupational Therapists</td>
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<tr>
<td>Therapy Assistants</td>
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<td>Kitchen staff</td>
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<td>Cleaning staff</td>
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<tr>
<td>Laundry Staff</td>
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<tr>
<td>Brightwater volunteers</td>
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<tr>
<td>Residents</td>
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<tr>
<td>Resident's family members</td>
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<tr>
<td>Other (please specify)</td>
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</table>

**33. I think the following resources/training would help me implement falls prevention management at my work site/facility (Tick one response in each row)**

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<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
<tr>
<td>Posters</td>
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<td>Brochures</td>
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<tr>
<td>Checklists</td>
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<tr>
<td>Staff forums (discussions)</td>
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<td>Video training (customised for different target groups)</td>
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<tr>
<td>Presentations by 'Experts' (in the field of interest)</td>
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</table>
34. I think falls prevention training should be available to staff using technology (making access to learning convenient to them) such as

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brightwater intranet</td>
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<tr>
<td>Secure Internet site</td>
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<tr>
<td>Tablet (eg. iPad) App</td>
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<td></td>
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<tr>
<td>Phone App</td>
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</tbody>
</table>

35. Can you identify any difficulties to implementing falls prevention strategies at your work site?

36. Do you have any other comments in relation to falls prevention and your facility at Brightwater?

37. Please comment on anything you think could be improved in the design of this questionnaire for future use.
You have now completed the questionnaire,

Thank you for your kind participation.
Appendix H:

Published Manuscript
(Australian Health Review)
Contributing to Chapter 5

Using a community of practice to evaluate falls prevention activity in a residential aged care organisation: a clinical audit

Jacqueline Francis-Coad* 1, 4 MClinPhy, PhD Candidate, Lecturer
Christopher Etherton-Beer† 2 PhD, MBBS, Consultant Geriatrician
Caroline Bulsara§ 3 PhD, Research Coordinator
Debbie Noble|| 8 BSc, Allied Health Consultant
Anne-Marie Hill* 1, 5 PhD, Associate Professor

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||Brightwater Care Group, Level 3, 355 Scarborough Beach Road, Osborne Park, WA 6017, Australia. Email: debbie.noble@brightwatergroup.com
8School of Physiotherapy and Exercise Science, Curtin University, GPO Box U1987, Perth, WA 6845, Australia. Email: anne-marie.hill@curtin.edu.au
*Corresponding author. Email: jacqueline.francis-coad@nd.edu.au

Abstract

Objective. This study evaluates whether a community of practice (CoP) could conduct a falls prevention clinical audit and identify gaps in falls prevention practice requiring action.

Methods. Cross-sectional falls prevention clinical audits were conducted in 13 residential aged care (RAC) sites of a not-for-profit organisation providing care to a total of 779 residents. The audits were led by an operationalised CoP assisted by site clinical staff. A CoP is a group of people with a shared interest who get together to innovate for change. The CoP was made up of self-nominated staff representing all RAC sites and comprised of staff from various disciplines with a shared interest in falls prevention.

Results. All 13 (100%) sites completed the audit. CoP conduct of the audit met identified criteria for an effective clinical audit. The priorities for improvement were identified as increasing the proportion of residents receiving vitamin D supplementation (mean 41.5%, s.d. 23.7) and development of mandatory falls prevention education for staff and a falls prevention policy, as neither was in place at any site. CoP actions undertaken included a letter to visiting GPs requesting support for vitamin D prescription, surveys of care staff and residents to inform falls education development, defining falls and writing a falls prevention policy.

Conclusion. A CoP was able to effectively conduct an evidence-based falls prevention activity and identify gaps in practice. CoP members were well positioned, as site staff, to overcome barriers and facilitate action in falls prevention practice.

What is known about the topic? Audit and feedback is an effective way of measuring clinical quality and safety. CoPs have been established in healthcare using workplace staff to address clinical problems but little is known about their ability to audit and influence practice change.

What does this paper add? This study contributes to the body of knowledge on CoPs in healthcare by evaluating the performance of one in the domain of falls prevention audit action.

What are the implications for practitioners? A CoP is an effective model to engage staff in the clinical audit process. Clinical audits can raise staff awareness of gaps in practice and motivate staff to plan and action change as recommended in best practice guidelines.

Received 12 October 2015, accepted 1 February 2016, published online 17 March 2016
Introduction

Older frail people who live in residential care are at very high risk of falls with falls rates across the resident aged care (RAC) sector ranging from 3 to 13 falls per 1000 bed days of care. These falls result in high rates of injury and consequently reduce independence and quality of life, therefore reducing falls rates has been identified as an industry priority.

What works in falls prevention?

Large meta-analyses have found that successful single-intervention strategies for reducing falls among RAC populations are providing supplementation of vitamin D and medication review by a pharmacist, however the effect of multifactorial interventions were inconclusive. Despite a multifactorial approach to falls prevention being recommended in best practice guidelines, others have identified that there are substantial gaps between the research evidence and its translation into clinical practice, with numerous barriers being identified in the “evidence pipeline”. Evaluating current falls prevention activity allows identification of gaps in practice, with the potential to change future falls outcomes in RAC settings.

Clinical audit

A common process used to measure and benchmark safety and quality in clinical care is audit and feedback (A&F). This is a process that enables clinical care staff or organisations to evaluate their current performance against evidence-based guidelines and identify gaps in practice for improvement. Some beneficial outcomes have resulted from A&F processes with the Cochrane review reporting an overall 4.3% increase in compliance with requested practice in a variety of clinical fields. It has also been shown that when A&F is combined with action planning there is a greater improvement in implementation of best practice guidelines and practice change. Falls prevention is a worthwhile focus of clinical audit as the acute care cost of falls per annum in Australia was estimated to be $648.2 million, of which a disproportionate amount is attributable to falls that occur among older people in RAC settings. Recommendations for conducting an effective clinical audit suggest the involvement of multidisciplinary workplace staff will help provide a broad range of authentic views. However barriers to staff conducting audits have been identified as staffing having limited time due to competing priorities and a lack of clinical leadership and interdisciplinary involvement.

We determined that an operationalised community of practice (CoP) that led falls prevention action across the RAC organisation would be well placed to conduct clinical audits of falls prevention activity. CoPs have been emerging in the healthcare sector as a resource for bringing together expertise for problem solving and actioning new policy and practice. The CoP in the present study, which was established according to principles of successful CoPs in healthcare, connected and used the knowledge and skills of multidisciplinary RAC staff working with academic researchers in falls prevention. If the CoP could successfully conduct the audits, this connection could create a powerful feedback loop for translation of falls prevention evidence into practice.

The aims of the study were:

1) to evaluate if a CoP could conduct falls prevention activity clinical audits;
2) to determine if a CoP could identify gaps in falls prevention practice; and
3) to identify barriers to the adoption of CoP planned falls prevention activities and facilitated actions.

Methods

Design

A cross-sectional survey using a validated audit tool adapted for RAC evaluated current falls prevention activity across 13 RAC sites of a not-for-profit organisation. The audit was planned by the falls prevention CoP based on the five stages of the audit cycle (Fig. 1) and audit performance was benchmarked using a matrix of predetermined elements for effective clinical audits. Participants and setting

This study formed part of a larger project investigating the impact of a falls prevention CoP in a RAC setting. The protocol for the larger project has been described elsewhere. The audit was coordinated by the CoP. The CoP was made up of 20 multidisciplinary staff that included four (20%) nurses, four (20%) care managers and 12 (60%) allied health professionals employed by a not-for-profit RAC provider across 13 geographically diverse sites in metropolitan Western Australia. Eighteen (90%) were women and two (10%) men, with 13 (65%) aged between 40 and 59 years. Sixteen (80%) CoP members had been employed at their RAC site for more than 1 year, with 10 (50%) having more than 6 years' experience in their current job role. Eleven (55%) had completed a bachelor degree in their field. CoPs characteristically have a facilitator, a lead position, from within its membership and the RAC organisation nominated their allied health consultant for this role. CoP members interacted frequently using the organisation's intranet supported by three annual face-to-face meetings. The RAC organisation provided care in a home-like environment to a total of 779 older people and was staffed by around 1185 full- and part-time care staff.
Clinical audit of falls prevention activity

Data collection and procedure

Stage 1

A face-to-face training session was organised for CoP members to familiarise them with the audit requirements and address any queries. In preparation for conducting the audit at their RAC site, CoP members used a researcher-designed template that required the CoP members to identify site staff who could assist them and perceived barriers to audit data collection at their RAC site. Any barriers identified by individual CoP members were shared and discussed with the entire CoP to allow a range of potential facilitators to be generated.

Stage 2

A previously validated falls prevention audit tool was selected that aligned with best practice recommendations. The audit tool comprehensively addressed nine falls prevention domains, including risk factor assessment, monitoring, education for staff and residents, the environment, organisational support and a range of interventions including harm-minimisation equipment and prescribed exercise programs. It contained both open and closed responses, measuring items such as the proportion of residents supplemented with vitamin D, proportion prescribed low-low beds and the frequency of medication review (see Table S1 available online as Supplementary Material to this article).

Stage 3

A web-based CoP discussion on a secure organisational webpage determined the commencement date and time for the 13 site audits, taking into account RAC site staff availability. CoP members coordinated the completion of the audit at their RAC site assisted by site staff namely care managers, nurses and allied health professionals. Multiple data sources were scrutinised including policy, process and care management documents in conjunction with observing clinical practices. Discussions with nursing and allied health assistants, cleaners, laundry and maintenance staff also contributed to establishing whether everyday practices reflected current policies.

Stage 4

Completed RAC site audits were collected by the CoP facilitator and delivered to the researchers for analysis. The CoP discussed feedback from the audit findings to determine the falls prevention areas for improvement in conjunction with barriers and facilitators to implementation. A plan of CoP actions for achieving falls prevention improvement at RAC sites was then developed, for example increasing the proportion of residents supplemented with vitamin D at RAC sites could be facilitated by CoP access to geriatricians to educate general practitioners (GPs) on the benefits of prescription to reduce falls rates.

Stage 5

The CoP determined that the best time for repeating the site audits would be following implementation of all prioritised falls prevention activities.

Ethical considerations

Clearance for the study was obtained from the human research ethics committee of the university and board of the RAC organisation; all CoP members provided written consent to participate.

Data analysis

Qualitative data that described the audit process were collected and transcribed from CoP training documents, CoP posts on an electronic discussion board, CoP emails and researcher journal observations into a Microsoft Excel 2013 spreadsheet (Microsoft Corporation, Redmond, WA, USA). Two independent researchers familiarised themselves with the data by reading the transcripts several times. These data were subsequently assessed using inductive content analysis. Data describing the CoP conduct of the audit process were mapped against elements (categories) of effective clinical audit using a structured category matrix to address Study Aim 1. Quantitative data drawn from the audit were entered into the SPSS statistical software package version 22 (IBM SPSS Inc., Chicago, IL, USA). Audit data were summarised using descriptive statistics. Audit domain findings were mapped against evidence-based best practice recommendations to address Study Aim 2. Qualitative data exploring any potential barriers and facilitators to engaging in falls prevention activity were mapped against audit domains using deductive content analysis to address Study Aim 3. Trustworthiness of the data was determined through discussion and consensus amongst CoP members regarding category naming and grouping. The CoP then used the mapping procedure to develop a falls prevention action plan.

Results

The CoP conducted the organisational falls prevention activity audit at all 13 RAC sites led by the site CoP member(s). The CoP audit and action plan met all five criteria for an effective clinical audit as shown in the Supplementary Material (Table S1). The CoP provided multidisciplinary, local leadership for assessing the high-cost problem of falls in RAC in tandem with assessing falls prevention processes and outcomes. These processes, practices and outcomes were measured using a validated audit tool that aligned with best practice guidelines. CoP preparation for auditing at sites identified lack of time due to demands of staff’s usual clinical duties as the main barrier to conducting the audit. The CoP met and discussed barriers and facilitators. This resulted in the identification of the best times to conduct audit tasks as before shift handover and during resident meal times, as these aligned with periods of lower clinical activity demand. CoP members subsequently engaged site nurses to assist with the audit domains of medications and continence, occupational therapists regarding equipment and environment, physiotherapists regarding risk assessment and exercise programs and care managers to assist with audit of policy and monitoring. This resulted in the burden of the audit tasks being shared, which facilitated conduct of the audit. Three RAC sites completed the audit tool electronically and 10 completed a paper copy. CoP member feedback post audit determined the audit tool was user friendly in layout because it contained mostly tick boxes but also
had spaces to add comments. CoP members reported feeling empowered after undertaking the falls prevention activity audit process, as it had raised their awareness of gaps in clinical practice and motivated them to take action:

‘I thought we were already doing everything we could for falls prevention.’ (CoP member 1.)

‘There’s a lot more to it [falls prevention] than I thought’ (CoP member 4.)

Audit findings were discussed at subsequent CoP discussions and priority gaps in falls prevention practice were identified across each audit domain. This was achieved by comparing the audit findings against falls prevention evidence and best practice recommendations.9 The RAC organisation’s level of compliance with falls prevention evidence and best practice recommendations for these priority areas are described in Table 1.

Audit findings that met or were close to complying with evidence and best practice recommendations included the following: medication reviews were undertaken annually by a pharmacist at 10 (76.9%) sites, as required at all 13 (100%) sites by visiting GPs and 10 (76.9%) sites also reported a nurse practitioner reviewed medications as requested. All 13 (100%) sites provided resident continence assessments with appropriate toileting programs. There was a 98% compliance rate for hip protector use in residents identified as suitable candidates for use (13.9%). Resident’s feet condition was reviewed every 6 weeks at all 13 (100%) sites by a podiatrist, footwear was checked annually at four (30.8%) sites by the physiotherapist and a process for assessing sensory deficits and aids (visual and auditory) was in place at 10 (76.9%) sites. Low-act beds were used by residents across all sites identified as at risk of falls when attempting to get up from bed unassisted (14%) and surveillance measures were operational at 11 (84.6%) sites.

Table 1. Priority findings from the falls and falls injury prevention activity audit conducted by the community of practice (CoP)

<table>
<thead>
<tr>
<th>Audit domain</th>
<th>Compliance measure</th>
<th>Recommendation/standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin D supplementation</td>
<td>Mean (s.d.) proportion residents supplemented vitamin D 45.5% (23.7)</td>
<td>Improve provision of adequate vitamin D supplementation (&lt;800 units/day) for all RAC sites</td>
<td>No CoP members (n=20) were aware of Level I evidence regarding effectiveness of vitamin D supplementation in reducing falls rates</td>
</tr>
<tr>
<td>Staff education</td>
<td>6 (46.2%) sites</td>
<td>Falls prevention training provided for all RAC staff. Training should be interactive, experiential, risk factor focused and explanatory of staff role.</td>
<td>No mandatory falls prevention training. Sites providing annual tutorial at staff meeting had less than standardised content, less than 50% of staff attended</td>
</tr>
<tr>
<td>Fall definition documented</td>
<td>2 (15.4%) sites</td>
<td>RAC facilities should adopt a consistent fall definition and process to ensure consistent uptake by all staff.</td>
<td>Site definitions not standardised or clinically explained therefore subject to interpretation; impacts reliability of falls reporting</td>
</tr>
<tr>
<td>Falls prevention policy</td>
<td>0 (0%) sites</td>
<td>Multifactorial approach using standard falls prevention interventions should be routine care for all residents</td>
<td>Falls management policy (post fall) in place across all sites but multifactorial falls prevention not systematically addressed</td>
</tr>
<tr>
<td>Falls risk assessment on admission</td>
<td>12 (92.3%) sites</td>
<td>All older persons admitted to RAC receive falls risk AoA, on admission, post fall, after change in health condition and after change in living environment. Identified risk factors addressed with appropriate intervention.</td>
<td>Falls risk assessment tool previously implemented by organisation covering 4/14 recognised falls risk factors with no clear alignment process to falls prevention strategies in resident care plan</td>
</tr>
<tr>
<td>Falls risk assessment post fall</td>
<td>4 (36.8%) sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falls risk assessment after change in health condition</td>
<td>9 (69.2%) sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falls risk assessment after change in environment</td>
<td>2 (15.4%) sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falls risk assessment annually</td>
<td>7 (53.8%) sites</td>
<td>Supervised individual balance exercises, 2 h per week cumulatively for improvement of mobility.</td>
<td>Cumulative balance exercise duration range 5–60 mins weekly. Duration dose delivered was suboptimal</td>
</tr>
<tr>
<td>Individualised balance exercise programs provided</td>
<td>11 (84.6%) sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusion exercises in standing position (ability dependent)</td>
<td>9 (69.2%) sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident education</td>
<td>6 (46.2%) sites</td>
<td>Engaging older people integral to preventing falls. Continuous prompts and reminders required to execute falls prevention strategies.</td>
<td>Sites delivered ad hoc, non-standardised. Resident falls prevention information. Methods for promoting resident engagement in falls prevention action not reflected in policy</td>
</tr>
</tbody>
</table>
Overall, existing falls prevention processes were perceived by staff to be working well at all 13 (61.5%) sites. The CoP planned falls prevention activities and discussed barriers and facilitators to adoption at sites as shown in the Supplementary Material (provided as online Table S2). Priority falls prevention activities that were planned included improving the proportion of residents supplemented with vitamin D, designing a mandatory falls prevention staff education program, defining falls and developing a falls prevention policy.

Discussion
Meeting the criteria for effective clinical audit was achievable by a CoP as members were able to share knowledge, discuss findings and action change in falls prevention activity. This aligns with the structure and purpose of CoPs described in the literature as models for collaboration and innovation. The CoP was able to overcome some of the barriers to audit reported in other studies through interaction. Lack of staff time, due to competing priorities, was partly overcome by the CoP sharing audit tasks with other site staff to reduce the burden. Lack of clinical leadership and interdisciplinary involvement was addressed in that CoP members provided audit leadership at their respective sites and were themselves multidisciplinary clinicians. The present study involved RAC staff in the audit process unlike a similar project conducted in RAC facilities that used external project officers as auditors. Involving workplace staff in quality improvement initiatives, such as clinical auditing, has been shown to be more successful than using external experts as staff will be the ones responsible for translating evidence into practice. The CoP was instrumental in contributing to the success of the A&F process as CoP members were RAC site staff with existing peer relationships. A&F is reported as being more effective for changing clinical practice when delivered by a peer or supervisor in both verbal and written formats. The establishment of the CoP across the RAC organisation to sustain clinical practice improvement fulfills an important recommended step in audit cycles.

The results of the falls prevention activity audit demonstrated there were gaps in practice, including lower levels of vitamin D supplementation and staff falls prevention training. Supplementing older people in RAC with vitamin D has been shown to reduce falls rates; with 89% of the population reported as having deficient or very low levels, but the present study found the mean proportion of residents supplemented was less than half this value. Staff education implemented as part of a multifactorial approach to falls prevention has delivered a 56% reduction in the number of resident falls. However simply providing generic educational material in brochures or handouts, as identified at six (46.2%) RAC sites, is reported as having little effect on staff adopting falls prevention actions. Interactive, authentic education tailored to staff subgroups and accessible to all is recommended. Our results relating to lower levels of vitamin D supplementation and falls prevention training demonstrate that the process of evidence translation to practice was not complete.

Barriers to CoP-planned actions centred on an uncoordinated approach to falls prevention. This finding may have contributed to the variation in compliance with best practice recommendations seen across the RAC sites. Facilitators to CoP actions centred on access to external experts, which suggests that research institutions should permanently align themselves with RAC organisations and take a more active role in the translation of evidence into practice. A key strength of this study was the inclusion of staff at all 13 sites, led by the CoP, in conducting the audit as opposed to solely using an external agency. The characteristics of a CoP include membership through shared practice across organisational boundaries, with a common topic of focus. Members engage in sharing knowledge and innovate for change through frequent interaction. Our CoP connected staff from all 13 RAC sites to address the topic of auditing falls prevention. CoP member access to frequent web-based communication enabled a coordinated, collaborative approach to clinical audit and the shared expertise of the membership fulfilled the multifactorial requirements of the falls prevention-activity audit enabling a more efficient and effective completion. As the CoP was established by the RAC organisation as a sustainable approach to falls prevention the CoP has the capacity to repeat this clinical audit process enabling continuous review of performance. Although the audit was cross-sectional, spending time identifying gaps in practice and barriers to implementing falls prevention activities was recommended to further enable the adoption of practice change.

Conclusions
A CoP was able to conduct an effective falls prevention activity audit at all 13 RAC sites included in the study. Audit findings and subsequent actions were informative for the RAC organisation for measuring falls prevention performance and planning improvement. Gaps in falls prevention practice highlighted that falls prevention evidence required more consistent translation across the RAC organisation. Similar RAC organisations may also benefit from undertaking this A&F process and action planning. We recommend the use of a workplace group of multidisciplinary staff with access to quality evidence, such as a CoP, to translate evidence into practice.

Competing interests
None declared.

Acknowledgements
This research was funded by the Australian Government Collaborative Research Network and supported by the Brightwater Care Group. The authors thank Brightwater staff, especially the members of the falls prevention community of practice.

References


Appendix I:

CoP Member 24 Months
Post CoP Operation Survey

Final Survey of Falls Prevention Community of Practice Members Nov 2015

PARTICIPANT INFORMATION

TITLE: Exploring and describing the experience of staff as members of a Falls Prevention Community of Practice in a residential aged care provider organisation

INVESTIGATOR(s): Jacqui Francis-Coad and Dr Anne-Marie Hill

By clicking on the link in the email sent to you by Debbie Nobre you have been brought to this site and are invited to take part in a follow up online survey. Thank you :)

What is the study about?
This study aims to explore and describe the experience of staff as members of a Falls Prevention Community of Practice in a residential aged care provider organisation. The findings from this survey will contribute to a larger research project that aims to investigate the impact of a falls prevention CoP in a residential aged care setting.

What will I be asked to do?
If you continue, you will be taken to the questionnaire. This questionnaire should take around thirty minutes of your time to complete.

Are there any risks associated with participating in this study?
There are no foreseeable risks associated with this study.

What are the benefits of the research study?
The study will explore staff experiences of CoP membership. The repeated measures for CoP member capability, opportunity and motivation to engage with ICT and perceived risk of falls, knowledge of falls and falls prevention strategies will also be compared with baseline data. Findings will inform sustainability of CoP operation and explanation of facility and organisational outcomes.

Can I withdraw from the study?
Participation in this survey is completely voluntary. If you agree to participate, you can withdraw from the survey at any time. However you cannot withdraw after you submit your survey, as surveys are non-identifiable.

Will my results remain confidential?
No one person will be identified in the survey results. The results will be presented collated/grouped from respondents. Responses will be stored securely in the School of Physiotherapy at The University of Notre Dame Australia for a period of five years.

Will I be able to find out the results of the survey?
We will email a summary of the survey to all those who receive this initial invite regardless of
participation.

Who do I contact if I have questions about the study? Please feel free to contact Jacqui or Anne-Marie if you have any questions.
jacqui.francis-coad@nd.edu.au
anne-marie.hilli@nd.edu.au
Final Survey of Falls Prevention Community of Practice Members Nov 2015

PARTICIPANT INFORMATION

What if I have a complaint or any concerns?
The study has been approved by the Human Research Ethics Committee at The University of Notre Dame Australia (approval number ). If participants have any complaint regarding the manner in which a research project is conducted, it should be directed to the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, research@nd.edu.au
Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

How do I begin?
By clicking the link to begin you are indicating your consent to be a part of this project.

Yours sincerely,

Jacqui Francis-Coad
Dr Anne-Marie Hill
<table>
<thead>
<tr>
<th>Question</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Please state your personal identification Code number (eg F16) in the box below:</td>
</tr>
<tr>
<td>2.</td>
<td>How long have you been a member of the falls prevention CoP? Please state your answer in months</td>
</tr>
</tbody>
</table>
* 3. I use the following technologies: (Tick as many as appropriate)
   - [ ] Email
   - [ ] Internet
   - [ ] Social media (eg Facebook/Twitter etc.)
   - [ ] Other
   Other (please specify) 

* 4. I use the Brightwater intranet as part of my every day work practice (Tick one)
   - [ ] Strongly Disagree
   - [ ] Disagree
   - [ ] Undecided
   - [ ] Agree
   - [ ] Strongly Agree

* 5. I have easy access (i.e. a computer that is available for your use) to the Brightwater intranet at my work site/facility (Tick one)
   - [ ] Strongly Disagree
   - [ ] Disagree
   - [ ] Undecided
   - [ ] Agree
   - [ ] Strongly Agree
* 6. I am confident to use the Brightwater intranet to communicate with other staff members (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

* 7. I have time to use the Brightwater intranet at my work site/facility for CoP participation (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree

* 8. I feel confident to use the electronic discussion board for communicating with other CoP members (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree
9. Were there any barriers in using the Brightwater intranet for CoP communication on which you would like to comment?

10. Is there anything you think would facilitate CoP communication using the Brightwater intranet on which you would like to comment?
* 11. What do you feel you have gained by participating in this CoP?

* 12. I have fully participated in CoP tasks/activities (Tick one)
- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree

* 13. My RAC facility has been represented in CoP discussions through my level of participation (Tick one)
- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| 14. Participating in the CoP gives me access to information demonstrating successes of falls prevention evidence-based practice (Tick one) | • Strongly Disagree  
• Disagree  
• Undecided  
• Agree  
• Strongly Agree |
| 15. Participating in this CoP has resulted in my adopting evidence-based guidelines/practice in my work practice (Tick one) | • Strongly Disagree  
• Disagree  
• Undecided  
• Agree  
• Strongly Agree |
| 16. Getting access to information that demonstrates falls prevention evidence-based practice makes it more likely that I would adopt evidence-based practice in my work (Tick one) | • Strongly Disagree  
• Disagree  
• Undecided  
• Agree  
• Strongly Agree |
| 17. Participating in this CoP provided me with the opportunity to discuss falls-related problems in a non-judgemental environment (Tick one) | • Strongly Disagree  
• Disagree  
• Undecided  
• Agree  
• Strongly Agree |
* 18. Participating in this CoP has provided me with access to experts in the field of falls prevention that I would otherwise have found difficult to obtain (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

* 19. Being a member of this CoP gives me access to a trusted colleague that I can turn to for advice or a second opinion, when needed (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

* 20. Getting access to multi-disciplinary relationships with other professionals through membership of the CoP helps me improve my work practice (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

* 21. Being a member of this CoP has impacted positively on my professional development (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree
* 22. My Care Manager (or Manager) has fully supported my participation in the falls prevention CoP (Tick one)
   ○ Strongly Disagree
   ○ Disagree
   ○ Undecided
   ○ Agree
   ○ Strongly Agree

* 23. In my opinion I have fulfilled my commitment as a RAC site representative on the falls prevention CoP (Tick one)
   ○ Strongly Disagree
   ○ Disagree
   ○ Undecided
   ○ Agree
   ○ Strongly Agree

* 24. Lower levels of member participation in CoP discussions and tasks has inhibited CoP achievement (Tick one)
   ○ Strongly Disagree
   ○ Disagree
   ○ Undecided
   ○ Agree
   ○ Strongly Agree

* 25. Attending the face-to-face meetings organised by the CoP helped me establish links with other clinicians involved in falls prevention (Tick one)
   ○ Strongly Disagree
   ○ Disagree
   ○ Undecided
   ○ Agree
   ○ Strongly Agree
26. Being a member of this CoP has helped at least on one occasion in my ability to solve a work-related problem (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

27. Please list up to three definite examples of how your work/practice has changed as a result of your participation in CoP activities and/or accessing resources provided by the CoP

28. The work of this CoP has resulted in my RAC site successfully implementing evidence-based guidelines/practice (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree
29. The work of this CoP has resulted in my RAC site developing a new program or process(es) to improve falls prevention (Tick one)

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

30. The work of this CoP has resulted in my RAC site achieving reduced falls or injurious falls (Tick one)

You can use your RAC site i-care falls incident data as a guide

- Strongly Disagree
- Disagree
- Undecided
- Agree
- Strongly Agree

31. Please tell us if you have suggested or changed anything in your RAC site environment to prevent falls?
* 32. Please tell us if you have shared any falls prevention information with staff (eg at a staff meeting, handover or iCare message of the day) at your RAC site? and if so what information?

* 33. Please tell us if you have shared any falls prevention information with residents (eg at a resident meeting, group activity or treatment session) at your RAC site? and if so what information?
* 34. In your opinion what are the key factors in enabling CoP success?

* 35. In your opinion what are the key factors limiting CoP success?
* 36. How would you define ‘a fall’?

* 37. Have you participated in any falls prevention training since joining the CoP? (Tick one)
   - Yes
   - No
   - Unsure

38. If you answered ‘Yes’ to the previous question please briefly describe the training (eg internal – at BW training centre / your site or External - conference or workshop)
39. State the falls prevention strategies that you are aware of for your residents:
(note – there is no minimum or maximum number required in this list)

40. From your answer to the previous question, which falls prevention strategy would you rate as most effective in residential aged care?

41. I am regularly informed (e.g. monthly reporting) of the number of falls or falls rates at my workplace/facility (Tick one)
   - Strongly Disagree
   - Disagree
   - Undecided
   - Agree
   - Strongly Agree
* 42. A "FALLS CHAMPION" is a person who assumes a leadership role in raising awareness, actioning and evaluating falls prevention management in the work place.

I feel motivated as "falls champion" at my work site/facility (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree

* 43. I feel confident as "falls champion" at my work site/facility (Tick one)

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Undecided
- [ ] Agree
- [ ] Strongly Agree
44. I think representatives from the following groups of people helped me action falls prevention management at my work site/facility (Tick one response in each row)

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Managers</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Nurses</td>
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<tr>
<td>Personal Care Assistants</td>
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<tr>
<td>Physiotherapists</td>
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<tr>
<td>Occupational Therapists</td>
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<tr>
<td>Therapy Assistants</td>
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<tr>
<td>Kitchen staff</td>
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<tr>
<td>Cleaning staff</td>
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<tr>
<td>Laundry Staff</td>
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<tr>
<td>Brightwater volunteers</td>
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<td></td>
</tr>
<tr>
<td>Residents</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Resident* family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
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</tr>
</tbody>
</table>

45. Can you identify any difficulties to implementing falls prevention strategies at your RAC site?
46. Do you have any other comments in relation to falls prevention and your facility at Brightwater?
You have now completed the questionnaire,

Thank you for your kind participation.
Appendix J:

Excerpt from Research Observation Journal

Researcher Observation Journal
February 2015

Turned up to speak at the staff meeting only to find it had been cancelled. Fortunately the DCM was able to round up carer staff at morning tea where JH was able to brief them about the survey. Left participant information sheets with DCM to be referred to at handovers to promote carer survey. Liaised with admin staff to assist in notifying when staff payslips arrive to organise stapling of questionnaire to payslip. Take stapler, pens, poster, collection box, lollies and cakes.

Practice point - phone RAC site the day before a meeting/event is scheduled as a REMINDER! So much is going on that things can easily be forgotten.

Testing care staff questionnaire at alternative site

Five staff completed the questionnaire around a table in the same room. The researcher was available for consultation if there were any queries or to clarify any mis-interpretation. Several small glitches were identified, most importantly the word STOP falls was perceived as stopping a resident who is starting to fall from ending up on the floor! This was replaced with PREVENT with the connotation that a resident could be stopped from having a fall (see hard copy of questionnaire with changes).

Grass roots falls festival Feb 19 & 20

This was an excellent local event with three CoP members attending (AE, AP & NB). Take away messages from CoP members for inclusion in CoP newsletter:

NB – Falls prevention being about good holistic patient care. Taking a Proactive approach to prevention (rather than Reactive, waiting for falls to occur) by having “Intentional Patient Rounding” check hourly (or 2):
Positioning (for comfort)? Pain? Hydration? Continence? Satisfaction (re-assurance that someone is there if they need them)? Environment (call bell and aids within reach, grip socks on or barefoot)

AE – Medication review with withdrawal of psychotropics etc. Risks outweighing benefits for Benzo’s in only resulting in 25mins more sleep/night but drowsiness/unsteadiness during daytime. Better balance program, TA’s must make resident’s ‘wobble’ ie challenge limits of stability.

AP – Traffic lights labelling (red, orange and green tape/ribbon) for walking aids quick visual guide indicating level of assistance resident requires.
Appendix K:

Care Staff Survey Conducted as Part of CoP Falls Prevention Activity

This questionnaire will assist us to find out more about falls prevention in residential aged care homes. Your responses will help to inform future training for staff in falls prevention.

This questionnaire will take approximately 15 to 20 minutes. All responses are anonymous and confidential. We appreciate your time to complete this survey.

Section 1 – Your details

1. Please state your gender: (Please tick one)
   - Male
   - Female

2. Which age group describes you based on your last birthday? (Please tick one)
   - 18-19 years
   - 20-29 years
   - 30-39 years
   - 40-49 years
   - 50-59 years
   - 60-65 years

3. What is the highest level of learning you have done? (Please tick one)
   - Left school before Year 10
   - Completed Year 10
   - Completed Year 12
   - TAFE (Certificate I to IV) (Please specify: ______________________)
   - Graduate Certificate (Please specify: ______________________)
   - Graduate Diploma (Please specify: ______________________)
   - Bachelor degree (Please specify: ______________________)
   - Master degree (Please specify: ______________________)
   - Other and / or overseas (Please specify: ______________________)
4. How long have you worked as a carer for older people either at this organisation or somewhere else? *(Please tick ☑ one)*

- [ ] more than 3 months but less than 6 months
- [ ] 6-12 months
- [ ] 1-2 years
- [ ] 3-5 years
- [ ] 6-10 years
- [ ] more than 11 years

5. How long have you worked at this organisation? *(Please tick ☑ one)*

- [ ] less than 6 months
- [ ] 6-12 months
- [ ] 1-2 years
- [ ] 3-5 years
- [ ] 6-10 years
- [ ] more than 11 years

6. What level(s) of care are you involved in delivering for the residents? *(Please tick ☑ all that apply)*

- [ ] High level care
- [ ] Low level care
- [ ] Dementia specific care
- [ ] Unsure

7. What shift(s) do you work? *(Please tick ☑ all that apply)*

- [ ] Morning
- [ ] Afternoon
- [ ] Night

8. What language do you mainly speak at home? *(Please tick ☑ one)*

- [ ] English (please go to question 10)
- [ ] Other (Please specify: ________________________________ )
9. If you speak a language other than English, do you have any problem writing, reading or speaking in English? *(Please tick ☑ one)*

☐ Yes    ☐ Reading    ☐ No
☐ Writing
☐ Speaking

Section 2 – This section asks for your feedback about falls or near falls and possible injuries that residents may experience

10. How would you describe “a fall” in your own words?

________________________________________________________________________

________________________________________________________________________

11. Do you think resident’s falls can be prevented from happening? *(Please tick ☑ one)*

☐ Yes    ☐ No    ☐ Unsure

12. Have you done any training to help prevent falls in the past? *(Please tick ☑ one)*

☐ Yes    ☐ No    ☐ Unsure

13. If you answered “yes” in question 12, please tell us a little bit about the training.

________________________________________________________________________

________________________________________________________________________

14. List the things you think could help prevent residents from falling.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
15. List any things you think could prevent residents injuring themselves if they fall.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

16. When thinking of all the residents at your site (as a group), would you say they were: (Please tick ☐ one)

☐ At very high risk of falls
☐ At moderate risk of falls
☐ At low risk of falls
☐ Unsure

Section 3 – This section asks about how you think about falls prevention when you are completing your shifts. Please read the following statements and rate your response.

17. When working my rostered shift, I feel confident that I know what to do to prevent residents from falling. (Please tick ☐ one)

☐ Strongly agree ☐ Agree ☐ Undecided
☐ Disagree ☐ Strongly disagree

18. When working my rostered shift, I am keen to prevent residents from falling. (Please tick ☐ one)

☐ Strongly agree ☐ Agree ☐ Undecided
☐ Disagree ☐ Strongly disagree

19. When working my rostered shift, I am confident that I can complete actions that can prevent residents from falling. (Please tick ☐ one)

☐ Strongly agree ☐ Agree ☐ Undecided
☐ Disagree ☐ Strongly disagree

20. What percentage of older people do you think fall in residential aged care homes every year? (Please tick ☐ one)

☐ 10% ☐ 20% ☐ 50%
21. What would you do if a resident has fallen over during your shift? Briefly describe the actions you would take.


22. Do you get any information at work on how to prevent residents from having a fall? *(Please tick ☑ one)*

   - ☐ Yes
   - ☐ No
   - ☐ Unsure

23. Is there a falls prevention plan in the notes of the residents you are currently working with? *(Please tick ☑ one)*

   - ☐ Yes (Answer Q. 24)
   - ☐ No (Go to Q. 25)
   - ☐ Unsure (Go to Q. 25)

24. If you answered Yes to the question 23, could you tell us a bit about the plan to help you stop residents you care for falling?


25. Do you share information with other care staff at work about how to prevent falls for the residents you care for? *(Please tick ☑ one)*

   - ☐ Yes
   - ☐ No
   - ☐ Unsure

26. I work as part of a team (nurses, manager, physiotherapist, other organisational staff at facility) to prevent falls in my work place *(Please tick ☑ one)*

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Undecided
   - ☐ Disagree
   - ☐ Strongly disagree

27. I think falls are a serious problem in residential aged care homes. *(Please tick ☑ one)*

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Undecided
   - ☐ Disagree
   - ☐ Strongly disagree
28. I think falls are a serious problem across this organisation.
   \( \text{Please tick } \square \text{ one} \)
   \( \square \) Strongly agree \( \square \) Agree \( \square \) Undecided
   \( \square \) Disagree \( \square \) Strongly disagree

Section 4 – This section asks you about how you think falls prevention training could be provided to care staff in this organisation

29. I think I have already had enough training about how to prevent falls.
   \( \text{Please tick } \square \text{ one} \)
   \( \square \) Strongly agree \( \square \) Agree \( \square \) Undecided
   \( \square \) Disagree \( \square \) Strongly disagree

30. If the organisation gave care staff training on preventing falls in the future, would you like training to be: \( \text{Please tick } \square \text{ one} \)
   \( \square \) E-learning (using a computer to watch, read and comment on falls and falls prevention)
   \( \square \) Watching a DVD on falls and falls prevention
   \( \square \) Attending an 'in-service' training session on falls and falls prevention including listening to a talk, watching some video clips and having a discussion

31. Where would you like to attend training on preventing falls? \( \text{Please tick } \square \text{ one} \)
   \( \square \) Organisation's central training centre
   \( \square \) Your facility
   \( \square \) No preference

32. Would you like reminders to help you know and use actions to prevent falls when you are at work? \( \text{Please tick } \square \text{ one} \)
   \( \square \) Yes \( \square \) No \( \square \) Unsure

33. If you answered Yes to question 32, what type(s) of reminder would you like? \( \text{Please tick } \square \text{ one} \)
   \( \square \) Written checklist in resident file
   \( \square \) Picture/photographic checklist in resident file
   \( \square \) Written checklist on the back of my name badge
   \( \square \) Posters around facility
34. What language(s) would you like the information on preventing falls to be available in? Please specify.

_____________________________________________________________________

35. What do you think could make it difficult to carry out falls prevention actions during your shift?

_____________________________________________________________________

_____________________________________________________________________

36. Please tell us anything else you think would help make this questionnaire easier for other care staff to answer.

_____________________________________________________________________

_____________________________________________________________________

Thank you so much for your help.
Appendix L: Resident Survey Conducted as Part of CoP Falls Prevention Activity

Demographic information to be gathered from iCare pre-questionnaire administration:

<table>
<thead>
<tr>
<th>Age (at last birthday):</th>
<th>years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Stay (calculated from Admission date):</td>
<td>months</td>
</tr>
<tr>
<td>MMSE score:</td>
<td>/30 {check with site Occupational Therapist}</td>
</tr>
</tbody>
</table>

**Please circle,**

<table>
<thead>
<tr>
<th>Gender:</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulant:</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**If ambulant,**

**Type of walking aid:**

**If non-ambulant,**

**Type of wheelchair:**

**Type of Transfer:**

**Faller:**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**If yes,**

**Number of falls:**

**RESIDENT QUESTIONNAIRE**

1
Research assistant to administer. Please circle ALL closed responses.

**Awareness of personal risk**

1) I think that older people who live in care homes like this one are at risk of falling over.

   Strongly agree  Agree  Undecided  Disagree  Strongly disagree

2) I think that if an older person who lives here falls over they are likely to get a serious injury (such as a sprain, broken bone or bumped head).

   Strongly agree  Agree  Undecided  Disagree  Strongly disagree

3) I think that I will fall over at some time whilst living here.

   Strongly agree  Agree  Undecided  Disagree  Strongly disagree

4) I think that if I were to fall over I would be likely to get a serious injury.

   Strongly agree  Agree  Undecided  Disagree  Strongly disagree

**Knowledge**

5) At a guess, if we talked to 100 older people living in care homes like this one, how many do you think fall over? (can prompt for a percentage or show resident the chart of 100 figures and ask them to point to the area representing their estimate)

   Record number: /100

6) Why do you think older people fall over? (can prompt with "tell me the reasons")

   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________

2
7) **(Non-faller)** If you were to fall over whilst living here where would it most likely happen? **OR**
**(Faller)** if you have fallen whilst living here where did it happen?

bedroom / bathroom or toilet / kitchen / dining area / lounge area / corridors / outdoor
area around this care home / other

---

8) Can you think of at least one thing that might be able to lower your risk of having a fall?

(more than one answer if possible, prompt “are there any others you can think of?”)

---

**Confidence**

9) I am confident that I could

(insert the most important thing mentioned in Qu 8) to lower my risk of falling.

Strongly agree       Agree       Undecided       Disagree       Strongly disagree

---

10) Something that might make it difficult for me to do the strategy I mentioned (in Question 9) is...
**Motivation**

11) I am very keen to lower my risk of falling whilst living here by using these strategies (referring to the “most effective” strategy that the participant has just identified).

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

12) I am very keen to maintain my mobility (or transfers) without help (or with minimal help) from the staff.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

13) I am very keen to maintain my independence with everyday tasks I can manage without help from the staff.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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</thead>
</table>

**Other**

14) I have the opportunity to maintain my mobility (or transfers) whilst living here.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

15) I have the opportunity to maintain my independence with every day tasks I can manage whilst living here.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

16) What is the one thing you think could keep you safe from falling whilst living here?

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

4
17) Is there anything else the staff or Brightwater could do to help prevent you from having falls?

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

18) Are you doing any exercises here? If yes, in a group or individually, what type, how often for how long? (flexibility [joint movement] strength [using weights or resistance] balance [sitting/standing] or games like bowls etc)

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

19) Which falls prevention message do you think would be most effective? (Can prompt “dangers like breaking your hip”)

One that:

Highlights the dangers of falling OR Highlights your safety, health and wellbeing

________________________________________________________________________________________________________________________________________________________

20) If Brightwater were providing you with some safety and falls prevention information would you prefer to receive

a brochure / a poster for your room / something to watch on TV or a screen / other
21) Would you like your family to be provided with some safety and falls prevention information?

Yes  No

Note if they say why not

22) Have you found any of these questions hard to understand? If so, which?

Research assistant to read back open responses to participant for verification.

Thank resident for their kind assistance and inform them that we will let them know the results of this survey in the Brightwater newsletter.

NOTES:
Appendix M:

Care Manager Feedback Survey on Perceptions of CoP Impact at Sites

Questions for Care Managers:

Please name the CoP member(s) at your site:

Do you think your CoP member(s) have influenced falls prevention at your site?

Please circle YES NO UNSURE

Is the CoP a standing agenda item at your site staff meetings?

Please circle YES NO UNSURE

Is the CoP newsletter distributed at your site?

Please circle YES NO UNSURE

Do you think the content of the CoP newsletters is useful?

Please circle YES NO UNSURE

In your opinion, what has been the main impact of the falls prevention CoP?

Thank you for your kind participation 😊
Appendix N:
Sample of Coding for Qualitative Content Analysis using COM-B Model

Barriers to CoP web-based (intranet) participation

<table>
<thead>
<tr>
<th>Code</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP24</td>
<td>Finding the time with many other things to do. If the questions and topics posted were simple and I could give a quick response I was more likely to reply. Another barrier was not knowing if something was posted. This was fixed by the introduction of email notifications.</td>
</tr>
<tr>
<td>FP19</td>
<td>Time to read, analyse, contribute to the discussion.</td>
</tr>
<tr>
<td>FP10</td>
<td>NA</td>
</tr>
<tr>
<td>FP5</td>
<td>General time constraints.</td>
</tr>
<tr>
<td>FP22</td>
<td>I don't have any experience with the use of the intranet. some one showed me how to get into the intranet when I started but I never needed to, now when I am in front of the computer I sit alone so no one to ask!</td>
</tr>
<tr>
<td>FP29</td>
<td>Some initial glitches which were rectified - i.e. notifications received when something new on the discussion board. time although have daily access to the computer not always feasible to balance work load and participating in CoP</td>
</tr>
<tr>
<td>FP3</td>
<td>I think emails are working better than the intranet.</td>
</tr>
<tr>
<td>FP1</td>
<td>Lack of spare time. Also, communication boards could be a bit simpler, quicker such &quot;Black Board&quot; at UNI. Even if there was access I have forgotten where it was and I was relying only on emails. Also busy day schedule, I felt guilty if any of my colleagues sees me doing anything other than daily tasks.</td>
</tr>
<tr>
<td>FP25</td>
<td>Time to allow for routine checking for messages. This was assisted by alerts being set up. Not a user friendly interface - the intranet is boring and not dynamic. It is time consuming to navigate.</td>
</tr>
<tr>
<td>FP21</td>
<td>Main barrier was time.</td>
</tr>
<tr>
<td>FP20</td>
<td></td>
</tr>
<tr>
<td>FP26</td>
<td>I would have benefited from a lesson in how to use the electronic discussion board as I have never used one before. Sometimes felt that it was the same people commenting (mostly physio's) which seemed to limit the conversation, rather than it being very broad across disciplines. Was easier to know there was a new topic introduced with email alerts, otherwise you had to think of looking in your busy day.</td>
</tr>
<tr>
<td>FP14</td>
<td>Unsure how to log in!!! Possibly the instructions were lost or given out whilst I was on leave.</td>
</tr>
<tr>
<td>F12</td>
<td>Yes, I found it cumbersome to continually check the discussion board, being onsite only 2 days/week.</td>
</tr>
</tbody>
</table>

Code: Capability=Purple, Opportunity=Green, Operational Barriers=Turquoise, Operational Facilitators=Yellow
Appendix O:

CoP Member Confidence, Motivation and Opportunity to Engage in Intranet Usage and Lead Falls Prevention Activity

Table N.1  CoP Member Confidence, Motivation and Opportunity Data
Table N.1  CoP Member Confidence, Motivation and Opportunity Data

<table>
<thead>
<tr>
<th>Item</th>
<th>SA *Pre / Post</th>
<th>A *Pre / Post</th>
<th>U *Pre / Post</th>
<th>D *Pre / Post</th>
<th>SD *Pre / Post</th>
<th>No Resp *Pre / Post</th>
<th>Median(IQR) *Pre / Post</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use the intranet as part of my everyday work practice</td>
<td>9/7</td>
<td>7/10</td>
<td>0/1</td>
<td>2/0</td>
<td>0/0</td>
<td>0/0</td>
<td>4.5(2-5)/4(3-5)</td>
<td>0.957</td>
</tr>
<tr>
<td>I have easy access to the intranet at my RAC site</td>
<td>11/11</td>
<td>6/7</td>
<td>0/0</td>
<td>1/0</td>
<td>0/0</td>
<td>0/0</td>
<td>5(2-5)/5(4-5)</td>
<td>0.480</td>
</tr>
<tr>
<td>I am confident using the intranet for communication with CoP members</td>
<td>5/6</td>
<td>12/11</td>
<td>0/1</td>
<td>0/0</td>
<td>1/0</td>
<td>0/0</td>
<td>4(1-5)/4(3-5)</td>
<td>0.564</td>
</tr>
<tr>
<td>I have time to use the intranet at my work site for CoP participation</td>
<td>3/2</td>
<td>10/6</td>
<td>3/7</td>
<td>1/3</td>
<td>1/0</td>
<td>0/0</td>
<td>4(1-5)/3(2-5)</td>
<td>0.190</td>
</tr>
<tr>
<td>I feel confident using the intranet discussion board with CoP members</td>
<td>2/4</td>
<td>9/9</td>
<td>5/2</td>
<td>2/3</td>
<td>0/0</td>
<td>0/0</td>
<td>4(2-5)/4(2-5)</td>
<td>0.589</td>
</tr>
<tr>
<td>I am regularly informed of falls outcomes at my RAC site</td>
<td>6/6</td>
<td>7/8</td>
<td>2/3</td>
<td>2/1</td>
<td>1/0</td>
<td>0/0</td>
<td>4(1-5)/4(2-5)</td>
<td>0.317</td>
</tr>
<tr>
<td>I feel motivated to be a falls champion at my RAC site</td>
<td>3/6</td>
<td>10/5</td>
<td>3/6</td>
<td>1/1</td>
<td>1/0</td>
<td>0/0</td>
<td>4(1-5)/4(2-5)</td>
<td>0.763</td>
</tr>
<tr>
<td>I feel confident to be a falls champion at my RAC site</td>
<td>2/4</td>
<td>11/7</td>
<td>2/6</td>
<td>0/1</td>
<td>3/0</td>
<td>0/0</td>
<td>4(1-5)/4(2-5)</td>
<td>0.305</td>
</tr>
</tbody>
</table>

Note. x= no data reported, #homes participating/non-participating, parenthesis denote control home data, *number residents in both phases, Adj= adjusted
*Pre CoP membership / 24 months Post CoP operation
SA Strongly Agree, A Agree, U undecided, D Disagree, SD Strongly Disagree, CoP Community of Practice, RAC Residential Aged Care
### Appendix P:

**Matrix of Frequency Counts of CoP Discussion Board Participation and Post Sharing**

<table>
<thead>
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P=Participating CoP member, Res=Researcher
Appendix Q:

Published Manuscript
*(Geriatric Nursing)*

of Care Staff Survey Pilot
Contributing to Chapter 6

Title
Assessing knowledge, motivation and perceptions about falls prevention among care staff in a residential aged care setting

Abstract
Falls are a serious problem in residential aged care settings. The aims of the study were to determine the feasibility of surveying care staff regarding falls prevention, and describe care staff levels of knowledge and awareness of residents’ risk of falls, knowledge about falls prevention, motivation and confidence to implement falls prevention strategies in a RAC setting. A custom designed questionnaire was administered to care staff at one site of a large residential aged care provider organization in Australia. The survey response was 58.8%. Feedback from staff was used to inform the administration of the survey to the wider organization. Seven (29.2%) care staff reported they were unsure or thought residents were at low risk of falls. Only five (20.8%) care staff were able to suggest more than three prevention strategies and only 13 (54.2%) were able to describe the residents’ falls prevention plans. These preliminary findings suggest that education to change care staff behavior regarding falls prevention should target improving care staff knowledge and awareness of falls.
Introduction

Falls are a serious problem in residential aged care (RAC) settings with studies demonstrating up to 50% of the residents fall over within 12 months of admission.\(^1\,^2\,^3\) Falls rates among this population have been found to be approximately 1.6 falls per bed per year.\(^4\,^5\) and these falls frequently result in injury and disability\(^6\,^7\) with an estimated incidence rate of hip fracture between 3% and 5% annually.\(^6\,^7\) Risk factors for falls among residents include a history of falls, use of walking aids, reduced balance and some categories of medication.\(^8\,^9\) but studies identify that in RAC and hospital settings environmental factors such as lighting, bed height and flooring are also strongly implicated in patient falls.\(^1\,^8\,^9\,^10\)

These frailer, older people are often restricted in activities of daily living (ADL) (81.3% have some form of disability) and it is estimated that 68% have a cognitive impairment, meaning they are potentially more vulnerable to falls.\(^11\) Therefore undertaking falls prevention strategies independently, on a daily basis, may be beyond the physical and cognitive capabilities of the majority. Hence, care staff are important stakeholders in assisting residents to prevent falls in RAC settings.\(^8\,^12\) Care staff, also known as certified nursing assistants or care workers in Australia,\(^13\) are responsible for supporting nurses in providing patient care. They provide direct assistance to residents for ADL, but do not undertake university education and may only have undertaken informal workplace training.\(^14\) Previous studies have estimated that care staff in RAC spend approximately 45.4% of an eight hour shift on direct care\(^14\) as compared to allied health professionals, such as physiotherapists, who spend an average of 2.3% of an eight hour shift on direct care in this setting.\(^15\)

RAC organizations in Australia are required to meet the accreditation standards set out by the Australian Aged Care Quality Agency (AACQA) to ensure high quality care is delivered to residents. This requires care staff to be equipped with knowledge and skills to perform their roles effectively.\(^16\) Care staff are required to directly undertake falls prevention strategies with residents and also complete indirect falls management procedures such as communicating care plan changes to other staff, informing new care staff about falls prevention strategies used for residents and translating new evidence into practice in a timely manner.\(^17\) Previous research has also found that care staffs’ perceptions of falls and patient safety culture have an impact on falls prevention. Care staff awareness and knowledge of falls prevention strategies can improve adverse event reporting.\(^10\,^18\) A previous study surveyed nursing assistants to validate a scale that can be used to assess their perceived self-efficacy in preventing falls for the patients they cared for.\(^10\) Whilst care staff self-efficacy has been evaluated there is limited research regarding their knowledge and motivation to prevent falls in a RAC setting.

The aims of this study were to i) determine the feasibility of conducting a survey of care staff in RAC regarding falls and falls prevention; ii) describe care staff levels of knowledge and awareness of residents’ falls risks, knowledge about falls prevention, and motivation and confidence to provide falls prevention strategies in a RAC setting.
Methods & Procedure

Study Design
This was a feasibility study using a cross-sectional survey. This research was approved by the University human research ethics committee and the RAC organization. Care staff were provided with information about the study and those who consented to participate completed the survey anonymously. This study was part of a larger study conducted within the RAC organization, which was evaluating how a group of staff leaders in falls prevention could translate falls prevention evidence into practice across the organization. All staff working in the organization were informed of the data collection period for the larger study. The larger study received ethical approval from the University human research ethics committee and the RAC organization.

Setting
This research was conducted at a selected site of a large RAC organization in Australia. There were 62 residents with differing care needs and functional ability, including residents with dementia living at the site. The site consisted of four residential wings, which were combined with communal living areas and gardens to form a single home like environment. This RAC site was one of the 13 sites operated by the RAC provider organization, which has a central corporate office providing on-going training and support for staff at all sites. New care staff receive two days orientation training including Occupational Health and Safety process and general manual handling for both care staff and residents’ safety. Orientation does not include dedicated information on resident falls, falls risk factors or falls prevention strategies. The pilot site was one of six (46.2%) RAC sites within the organization which provided an annual tutorial for ongoing falls education for care staff at their site staff meeting. However falls education content varied in quality, was not standardized across different sites of the organization and was attended by limited numbers of staff.

Participants and Recruitment
Recruitment took place between January 1st and March 31st 2015. There were forty one care staff working at the site and all were invited to participate in the pilot study. Inclusion criteria were that the staff member had been working at the site for a minimum of 3 months, was aged over 18 years and was able to read and write English sufficiently to respond to the survey.

Questionnaire Development
A questionnaire was developed, using principles of questionnaire design to describe and explore care staff knowledge, motivation, confidence and awareness regarding falls prevention at RAC sites. The questionnaire consisted of 36 items which used a mix of open and closed-ended responses to collect quantitative and qualitative data. The Likert scale was chosen to provide response options for closed ended items, as this is the most frequently used scale in psychology and education for rating beliefs, opinions and attitudes which cannot be measured precisely. Potential participants were care staff who had undertaken a variety of training, ranging from informal to certified technical college programs. Therefore questions were written using simple, clear and unambiguous language to ensure the questionnaire could be completed by participants with varying levels of literacy, such as those care staff who spoke English as a second language. The questionnaire was assessed using
the Flesch-Kincaid readability index program to ensure the questionnaire was at an appropriate English literacy of seventh-grade level.23,24

The framework of the questionnaire was based on the COM-B model of behavioral change. This model explains that capability, opportunity and motivation are key determinants of engagement in health behaviors.25 The questions were designed by the research team which included RAC site staff who operated a falls prevention community of practice (CoP). The questions were based on other validated questionnaires, which investigated knowledge and attitudes about falls prevention including falls awareness in residential aged care settings, self-efficacy of nursing assistants regarding falls prevention and knowledge about falls prevention.10,26,27,28,29 The domains covered in the questionnaire were care staff’s perceptions about falls or near falls experience among the residents they cared for, translation of evidence based falls prevention strategies into practice during their rostered work shift, their previous experience of falls prevention training and the type of falls prevention training they would like to have in the future. Two open-ended questions asked care staff to list strategies they thought could help prevent residents they cared for from falling and briefly describe the actions they would take if a resident has fallen over during their shift. A final open ended question asked staff to provide any suggestions that would help to make the questionnaire easier for other care staff to answer. The questionnaire was then administered to five care staff at a RAC site separate to the site selected for the study using a “talk through” approach to validate the draft questions with care staff.10,30

Procedure

The researchers attended a site staff meeting to provide information to staff about the study. Subsequently the questionnaire was stapled to the payslip of every care staff member and was advertised by the site managers using informative posters (researcher developed) attached to the announcement boards together with verbal reminders at staff meetings and handovers during each shift. Care staff consented to participate in the survey by completing the questionnaire, which contained a statement implying that submitting the questionnaire confirmed their consent to participate in the study. Completed questionnaires were placed in a sealed collection box in the staff room.

Statistical Analysis

All quantitative data were managed using IBM SPSS statistics for Windows (or mac) (SPSS 22). Quantitative data were summarized using descriptive statistics. Results were presented using frequency tables and percentages. All qualitative data obtained from open ended questions and verbal staff feedback were analyzed using content analysis.31 These data were entered verbatim onto a Microsoft Excel (2013) spreadsheet [Microsoft Corporation, Washington, USA] and coded using color highlights. Two researchers independently coded and grouped the data then met to discuss interpretation. Any disagreements were arbitrated by the third researcher. Responses were then organized using open coding, category creation and abstraction. Notes and headings were made in the text margins during reading to holistically describe the content. Multiple categories were generated from the headings copied onto coding sheets. These were then grouped under higher order headings to reduce the number of categories through the collapse of like and unlike categories. The abstraction
process involved applying content-specific words to each category. WORDLE™ was also used to triangulate generation of researchers’ codes and categories in the open-ended questions. Subcategories with similarities were then described using a generic category and finally an overarching main category.

Results

Feasibility

There were 41 staff who were eligible to complete the survey with the response rate for survey completion by staff being n=24 (58.5%). Actions planned to improve the procedural feasibility of administering the questionnaire are presented in Table 1.

Findings from the survey

There were 20.8% (5) male and 79.2% (19) female participants who completed the questionnaire with 54.1% (13) of them being over 50 years of age. Education levels ranged from a university degree [n=2, (8.3%)], to 20.8% (5) finishing year 10. Twenty-two (91.6%) care staff had more than a year of experience working at a RAC site with 50.0% (12) of them working both morning and afternoon shifts. Eight (33.3%) care staff did not speak English as their first language but only 12.5% (3) reported that they experienced difficulty in writing English and only one participant reported difficulty in reading English.

Only 20 care staff (83.3%) responded to the open ended question which asked them to describe a fall. Thirteen subcategories were identified and described under four generic categories. The generic category describing a fall as unexpected in nature (n=18) was identified using words such as sudden loss of balance during ambulation due to slip and falls. Other categories identified were the presence of resident risk factors (n=5), consequences of falls (n=3) and landing at a lower level (n=5).

Care staff responses to closed-ended questions are presented in Tables 2 and 3.

Open responses listing falls prevention strategies suggested by 21 (87.5%) care staff and the actions care staff would take after a resident had fallen are presented in Table 4 and 5 respectively.

Twenty care staff identified at least one barrier to carrying out falls prevention strategies in their workplace. These were grouped into four generic categories: lack of manpower (n=10), lack of information (n=5), non-compliant residents (n=2) and unsafe environment (n=2). Lack of manpower was explained as either time pressure to perform pre-existing duties (n=5) or a low staff to resident ratio (n=5).

While 18 (75.0%) care staff were aware of falls prevention plans for the residents they cared for, four (16.7%) were unsure if the residents they cared for had a falls prevention plan in place. When asked to describe the plan, 13 (54.2%) care staff responded but only 3 (12.5%) care staff identified more than three planned falls prevention strategies. Items sub-categories included assistance for mobility (n=3), having equipment such as sensor mats and alarm to prevent falls (n=3), the use of physical restraints (n=2), education to residents (n=2), medication (n=2) and the use of falls risk alert stickers (n=2).
Twenty (83.3%) care staff wanted reminders to carry out falls prevention strategies. A variety of reminders to action falls prevention strategies were requested by five (20.8%) care staff. Seventeen (70.8%) respondents stated a preference for posters displayed around the site, 54.2% (13) preferred a picture checklist in the resident’s file while 50.0% (12) expressed a preference for a written checklist in the resident’s file. Gaps in falls prevention training were identified in Table 2 and 3.

Discussion

This study provided some evidence that surveying care staff was a feasible means to evaluate their potential for behavior change around falls prevention. The response rate (58.8%) for this survey was within the acceptable range of survey response rates (30-60%) suggested in the literature, however modifications to the survey procedure and content were planned with the intent of improving future response rates. Researchers identified what actions the research team needed to take to potentially improve care staff participation in larger surveys of this kind and proposed actions that were framed around behavioral change techniques (BCTs) to address these. Behavioral change techniques are defined as “an active component of an intervention designed to change behavior.” Specific consideration was given to the feedback provided by care staff regarding their participation in the survey and completing the questionnaire. While it appeared feasible to survey care staff, several potential facilitators to recruitment and completion were identified. For future research, we recommend questionnaires be distributed by a registered nurse at shift handover following a verbal explanation of questionnaire purpose to provide a more personal approach for facilitating recruitment and completion. As the RAC organization’s expectation for completing questionnaires was during working hours, care staff found it challenging to prioritise the time to complete the questionnaire. Future participating RAC sites within the organization will be provided with suggested facilitators to maximise recruitment and response rate. Feedback from the staff who piloted the questionnaire included replacing words which were not easily comprehended and setting out the survey so it was more spacious and had larger tick boxes making it easier to complete as a paper copy. This feedback was incorporated into the final questionnaire design. (The finalized questionnaire can be provided as an online Appendix). A procedural guideline for administering the survey in future to other RAC sites was also developed (This can be provided as an online appendix).

Preliminary findings from this survey demonstrate that RAC care staff have low levels of capability (awareness and knowledge) regarding falls and falls prevention, which may be attributed to the lack of mandatory education on falls prevention during orientation training and ongoing education. Even though older people living in RAC settings have been shown to be at a high risk of falls, over 75% of the care staff surveyed reported that they were unsure or thought that the residents were at moderate or low risk of falls, and only 70% were aware that residents had a falls prevention plan in place. Half of the care staff who responded were not aware that 50% of residents in a RAC setting fall annually. Since care staff spend the most time with residents, a low awareness of falls risk could mean they may not interpret resident cues that should prompt initiation of relevant falls prevention strategies.
Most care staff who responded to the survey indicated they were motivated to implement fall prevention strategies in a RAC setting. However, despite high levels of motivation, low levels of knowledge about falls prevention may limit the ability of care staff to effectively translate evidence into practice. Less than half of the care staff were able to describe the strategies contained in the residents’ falls prevention plans. Concepts of health behavior change explain that capability, opportunity and motivation are all required for RAC care staff to engage in falls prevention strategies with the residents they care for. Sixteen care staff matched only one component of a standardized definition of a fall and only one care staff provided a definition that totally matched the standardized definition. This may result in falls being underreported as shown in other studies, with strategies not being implemented that could prevent further falls. Over 75% care staff suggested that extrinsic factors such as removing hazards could prevent falls, but only four respondents suggested that staff surveillance could be a useful falls prevention strategy. This may mean that care staff do not think that they should observe residents behavior, and report behavior which might pertain to the adverse effects of medication or medical illness, such drowsiness or loss of balance.

Care staff identified that a key barrier to effective falls prevention was the low ratio of care staff to residents which has been supported by previous research. This lack of manpower and time pressure described by the care staff could limit their opportunity to engage in falls prevention strategies. Care staff also identified that locum care staff may have limited awareness of residents’ capabilities which could increase the likelihood of falls in residents they provide care for. This finding was similar to that of Castle & Engberg (2007).

Since the main finding identified by the survey was a low level of care staff capability to provide effective falls prevention strategies, one solution could be to provide education and training. Further education and training could enhance care staff falls knowledge and skills to prevent falls from occurring, as only half of the care staff responded that they had received falls prevention training. The RAC site could benefit from using recent Australian training guidelines in designing care staff training to include education about falls and falls prevention. Since care staff have limited formal health care training they may be unaware of how to self-assess their knowledge levels and require skills checklists and further training.

These findings provide insight that gaps in care staff education and training exist, however the findings should be considered judiciously in view of the small sample size (n=24) and single RAC setting. Future research will benefit by administering this questionnaire across a large number of RAC sites, as this could be one of the ways to identify the types of education programs needed by care staff in order to improve translation of falls prevention strategies into practice. Administering this survey to a larger number of sites and participants would allow reliability and validity to be established. Since this is a new area in falls prevention research, there is need for further exploration as care staff play such an important role in RAC settings.

**Conclusion**

This study established a feasible means of surveying staff about falls prevention within a RAC setting. These results may also be valuable to assist other RAC settings who wish to survey their own staff regarding falls prevention. Although care staff in RAC settings spend nearly half their time directly assisting residents, care staff still need to have a foundational understanding of falls prevention strategies to be able to prevent falls effectively.
staff surveyed were found to have low levels of knowledge about falls prevention and a low level of awareness about residents’ risk of falls. Improving care staff levels of knowledge (capability) in this area by providing education and training opportunities may be an important component in facilitating translation of falls prevention evidence into practice in a consistent manner across RAC settings. Future research should continue to assess care staff levels of knowledge, awareness, opportunity and motivation to undertake falls prevention action.

References


Appendix R:

CoP Tales Newsletter Edition 4
Distributed to all RAC Sites

“Falls prevention is everybody’s responsibility”
Your CoP has brought together Nurses, PTs, OTs & Care Managers from all residential aged care sites to work on falls prevention...

Before you leave...
- Cell bell close
- Walking aid close
- Goggles/hearing aids on
- Supportive shoes on
- Light for day or night
- Drink of water
- Comfortable

CoP spotlight:
Few of us fully witness a resident fall but video analysis research is enabling us to better understand the conditions and mechanisms involved. Recent studies reported many falls occurred because of an inability to weight shift correctly – our Physio programs can help with this. The CoP recommend staff invest 12 mins and watch the educational video produced by the research team “Evidence from real-life falls” via your CoP member portal.

Care training now has a new falls risk assessment linked directly to tailored prevention strategies in a management plan. The CoP consulted with all sites and staff groups in development over several months to produce documents that are both evidence reflective and user-friendly. A special thanks to the CoP working party, especially Nicole Blackburn from The Oaks, for leading this project. We encourage everyone to trial these new forms and ask your CoP members for feedback.

The CoP would like to say a special thank you to the staff and residents at EARLHAM for their wonderful participation and we wish them all the best.

‘CoP achievements’
- Organisational falls prevention policy completed
- New FRAT with linked strategies & management plan in iCare for trial
- Falls Prevention / Safety & Wellbeing poster checklist available for RAC sites
- CoP establishment and operational feasibility paper presented at National Physiotherapy Conference

CoP surveys informing fall prevention education
Earlier this year the CoP conducted surveys with 147 care staff and 40 residents across 8 sites. The aim of the surveys was to find out what care staff and residents know about falls and falls prevention to enable designing effective falls prevention education. Both groups demonstrated a greater awareness of extrinsic risk factors and perceived falls to be caused by things like mis-judging obstacles, slippery floors or not using a prescribed walking aid. This indicates our education should target raising awareness of intrinsic risk factors. 76.2% of care staff said they’d like reminders to help them take actions to prevent falls when at work. The most popular reminder was a poster checklist (54.4%). Residents told us they would like to receive falls prevention messages in a way that highlighted safety and wellbeing (35%) and the most popular delivery was a poster for their room (27.5%). The CoP have worked to provide both groups with an A4 poster safety/wellbeing checklist (shown above) that can be displayed in residents rooms, on staff noticeboards or work stations. The caption “Before you leave…” we hope reminds staff, residents, friends and families to apply these checks

We wish you a Merry Christmas and look forward to working with you on falls prevention in 2016!