



Making Health and Care for Older People living in Care Homes Safer

11.11.2021

‘Safer Care Systems and Transitions’ theme

Dr Maria Panagioti, Dr Sally Giles,
Dr Natasha Tyler, Dr Claire Planner

NIHR

Greater Manchester
Patient Safety Translational
Research Centre

Overview

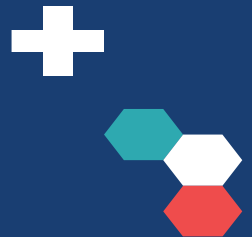
1. Review of Infection Prevention Interventions in Care Homes
Maria Panagioti
2. Developing a Safety Framework for Care Homes
Sally Giles
3. Developing a Resident Measure of Safety in Care Homes
Natasha Tyler
4. Review of Transitional Care Interventions for Older People Living in Long-term Care Facilities
Claire Planner

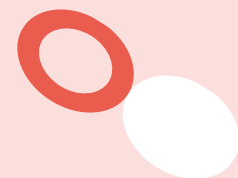
1. Beyond the control of the care home: A conceptual review of qualitative studies of Infection Prevention and Control (IPC) in residential and nursing homes for older people*

Dr Maria Panagioti (PhD)

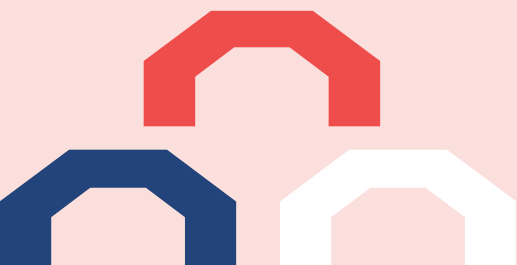
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* Elements previously presented at SAPC North,
Nov. '20





Introduction



Infection Prevention & Control (IPC) in Care Homes

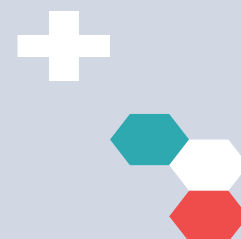
- Covid-19 had a global impact on the care home sector
- In UK, rapid & mass discharges from hospitals mooted as the principle explanation
- Residential settings are recognised as vulnerable to a range of hospital-acquired infections, including MRSA and *C. Difficile*
- Previous studies (mainly US-based) report variability in staff adherence to IPC
- Interventions in the field include national care collaboratives



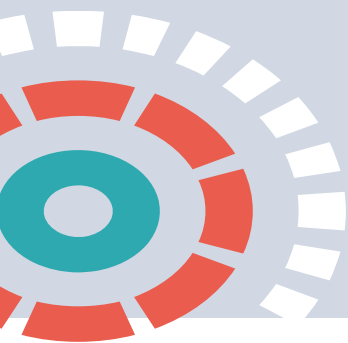
Daily Telegraph, 18th April 2020

Aims & Focus

- A meta-synthesis of findings from qualitative studies of IPC in care homes would yield insights into factors affecting transmission of infections into, and within homes
- Meta-ethnography was chosen as a review and synthesis method, as it offers the opportunity to develop conceptual insights which go beyond the findings of primary studies
- Our aim was to develop a conceptual model of the factors which influence infection transmission in residents of care homes for older people



Methods



Search process

Search Strategy

The bibliographic databases Medline, Embase, PsychINFO, CINAHL and ASSIA were searched using a strategy with 3 modified blocks derived from previously published reviews: care homes for older people, infections (IPC focus), and some simple text words found to have high utility in identifying reports of qualitative studies. Google Scholar was searched as a grey literature source.

Inclusion criteria

Published reports of studies using qualitative methods of data collection and analysis

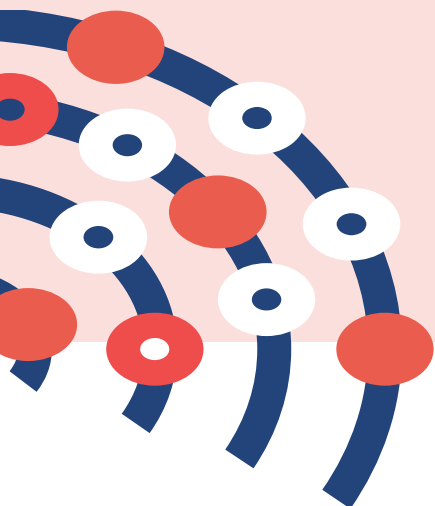
Presented in English

Participants/Settings: staff, residents or managers of LTCFs (i.e. nursing or residential homes) for people aged over 60

Focused on IPC



Results



Search Results: 15 reports were included

TESTING THE EFFECT OF A RESIDENT-FOCUSED HAND HYGIENE
INTERVENTION IN A LONG-TERM CARE FACILITY: A MIXED METHODS
FEASIBILITY STUDY

By

KATHLEEN AUMANN MORALES

A Dissertation Submitted to the Graduate Faculty
of Georgia Baptist College of Nursing of Mercer University
in Fulfillment of the
Requirements for the Degree

DOCTOR OF PHILOSOPHY

Atlanta, GA

2017

A QUALITATIVE STUDY ON PERCEIVED BARRIERS AND
FACILITATORS OF IMPLEMENTING AN ANTIMICROBIAL
STEWARDSHIP INTERVENTION IN THE MANAGEMENT
OF URINARY TRACT INFECTIONS IN A LONG-TERM
CARE SETTING

By April Chan, BSc(Pharm), ACPR, PharmD

A Thesis Submitted to the School of Graduate Studies in Partial Fulfillment of the
Requirements for the Degree Master of Science

McMaster University © Copyright by April Chan, October 2019

Search Results: Key articles (6/15)



Geriatric Nursing

Volume 36, Issue 4, July–August 2015, Pages 267–272



Feature Article

Understanding infection prevention and control in nursing homes: A qualitative study

Patricia W. Stone PhD, FAAN^{a,*,}, Carolyn T.A. Herzig MS^a, Monika Pogorzelska-Maziarz PhD^b, Eileen Carter PhD, RN^{a, c}, Ragnhildur I. Bjarnadottir BSN, MPH^a, Patricia K. Semeraro MS^a, Catherine C. Cohen BSN, PhD(c)^a, Jasmine Travers MSN^a, Steven Schween MPH, MSN^d



HHS Public Access

Author manuscript

Geriatr Nurs. Author manuscript; available in PMC 2016 September 01.

Published in final edited form as:

Geriatr Nurs. 2015 ; 36(5): 355–360. doi:10.1016/j.gerinurse.2015.05.001.

Perceived Barriers to Infection Prevention and Control for Nursing Home Certified Nursing Assistants: A Qualitative Study

Jasmine Travers, BS, MS^a, Carolyn T.A. Herzig, MS^{a, c}, Monika Pogorzelska-Maziarz, PhD, MPH^b, Eileen Carter, PhD, RN^{a, d}, Catherine C. Cohen, PhD(c)^a, Patricia K. Semeraro, PhD(c)^a, Ragnhildur I. Bjarnadottir, BSN, MPH^a, and Patricia W. Stone, PhD, FAAN^a



Korean Journal of Adult Nursing
Vol. 30 No. 6, 634–642, December 2018

pISSN 1225-4886 / eISSN 2288-338X
<https://doi.org/10.7475/kjan.2018.30.6.634>

ORIGINAL ARTICLE

Open Access

Nurses' Views on Infection Control in Long-Term Care Facilities in South Korea: A Focus Group Study

Lee, Chi-Young¹ · Lee, Min-Hye² · Lee, Seong-Hyeon³ · Park, Yeon-Hwan⁴



American Journal of Infection Control

Volume 48, Issue 4, April 2020, Pages 398–402



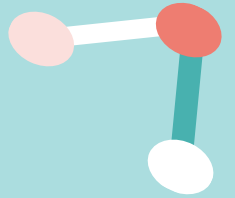
Major Article

Environmental service workers as potential designers of infection control policy in long-term care settings

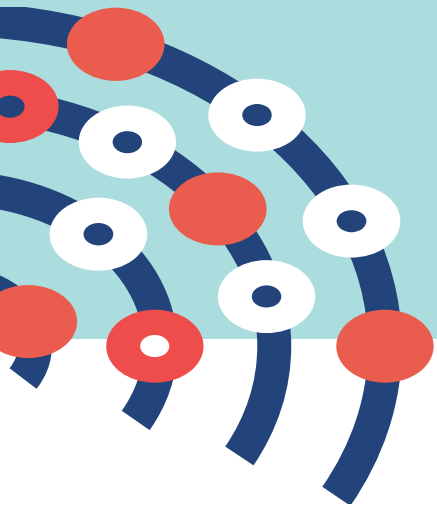
Jennifer M. Van Tiem PhD^{a, b,*,}, Julia E. Friberg MPH^a, Cassie Cunningham Goedken MPH^a, Lisa Pineles MA^{a, d}, Heather Schacht Reisinger PhD^{a, e, f}, Daniel J. Morgan MD, MS^{a, d}, Samantha L. Solimeo PhD, MPH^{a, b, e, f, g}

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Translating the Studies

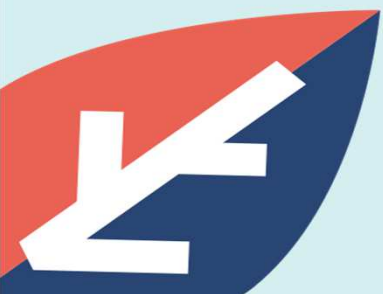


Finding Groups

- Staff knowledge, attitudes and practice
- Workload / Lack of time or resource
- Problems getting staff to enact IPC procedures
- Staff motivations for practising IPC
- IPC not seen as appropriate in care home environment
- Residents' views and IPC behaviour
- Clinical issues, including clinical information

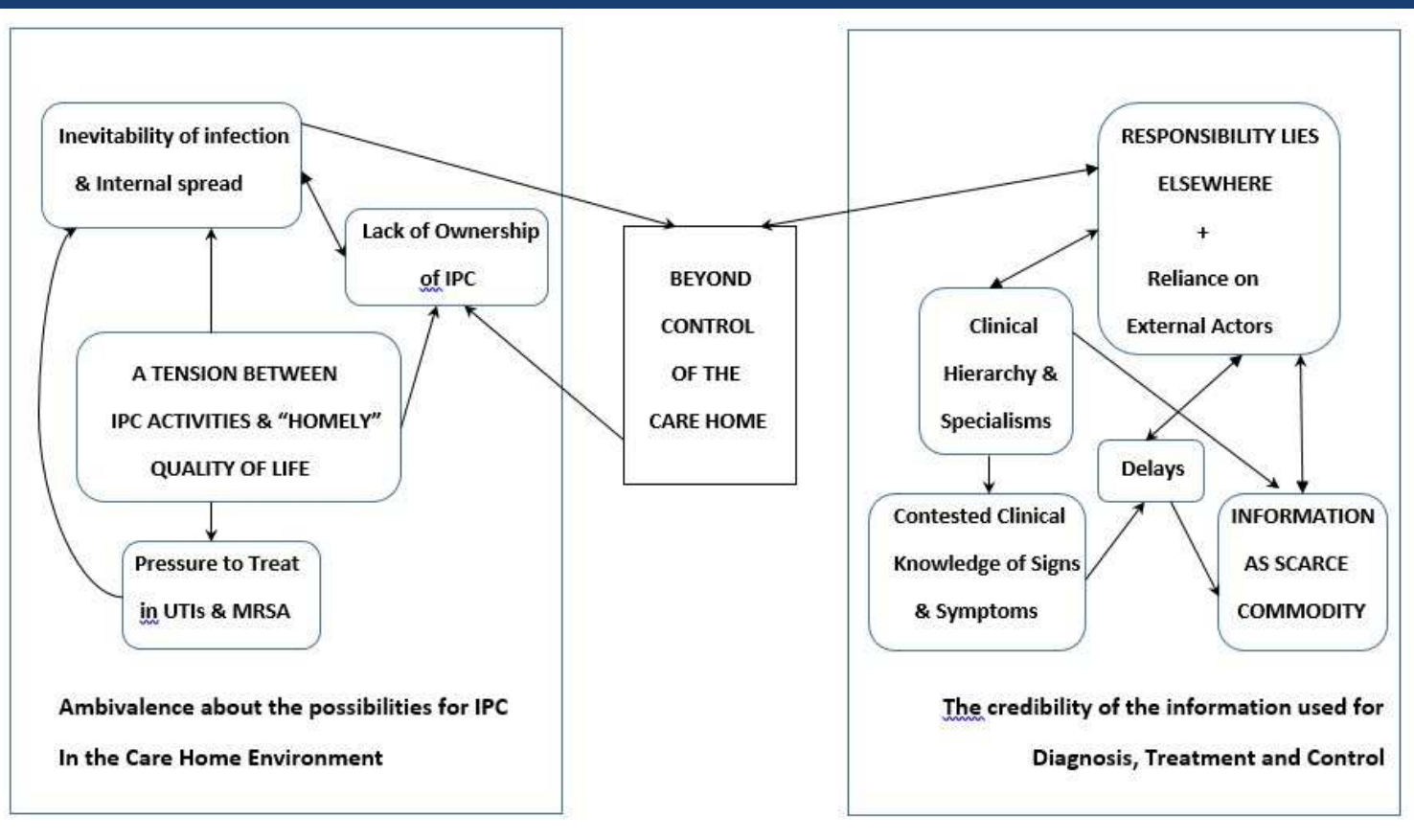


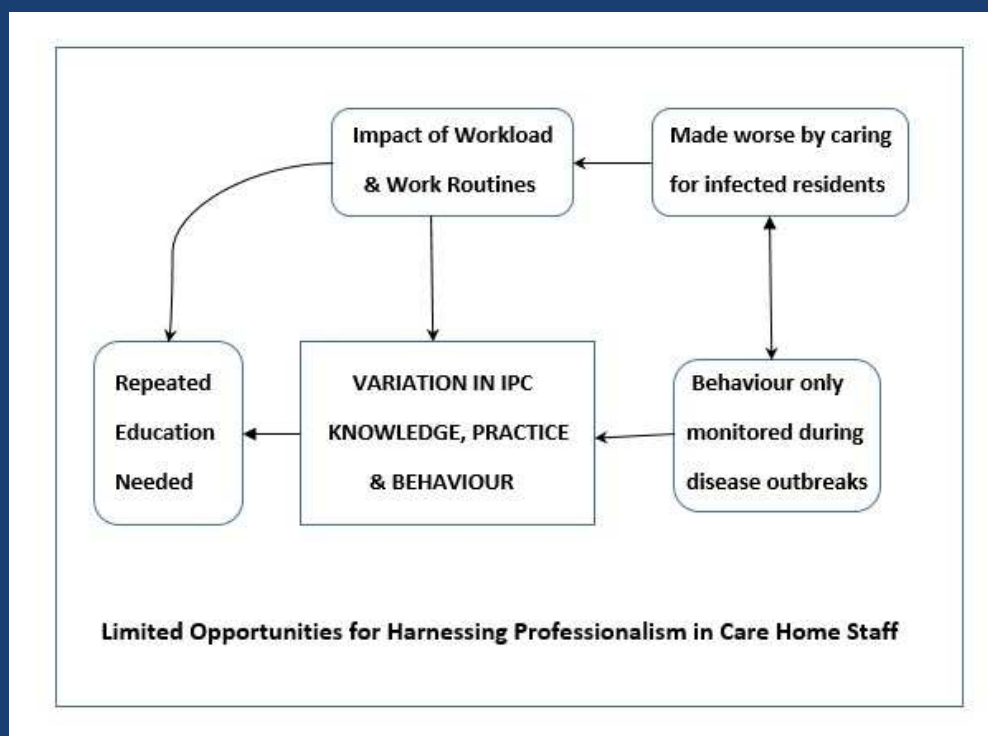
Synthesis

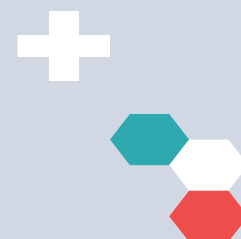


Results

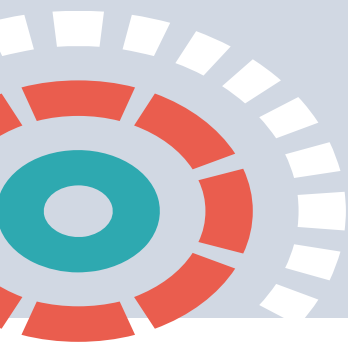
- One of the challenges faced by care homes is uncovering how an outbreak begins. Then, once an infection begins to spread, identifying who is responsible for the necessary control measures is not always easy.
- High staff turnover was also found to be an additional challenge as well as the need to bring in external health care professionals such as GPs to diagnose or treat an infection effects IPC.
- Training staff repeatedly could support them in ensuring IPC is effectively practiced across care homes as this would help to, overcome one of the key reasons why IPC in care homes has not been as effective as it could have been, i.e. high staff turnover. However, the success of this measure depends upon managerial commitment and organisational improvements being made within care homes.





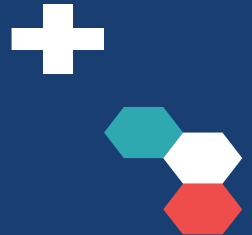


Discussion



Discussion

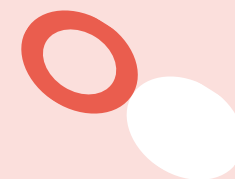
- An infection breakout would likely weaken IPC in care homes, due to exacerbation of workload and additional pressures of monitoring
- IPC practices can be antithetical to notions of a “homely environment” and may create moral dilemmas for staff. Clinical control in shared residential spaces may be unworkable given current social organisation of care home life
- Key control mechanisms (HAI transmission, testing, treatment) lie outside the control of care homes which could underlie a view that IPC is not something for care homes to worry about
- Key issues in IPC practice relates to communication between care assistants (perceived to be of low skills status) and family doctors (afforded high clinical skills, but physically removed from the facility) and how to ensure organisation-supported staff training.



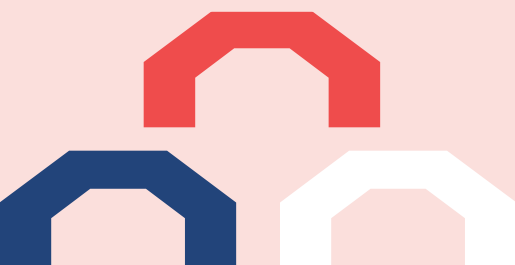
2. Safety domains for residents in care homes: a systematic review

Dr Sally Giles (PhD)
sally.giles@manchester.ac.uk





Introduction



Why is it Important (1)?

- Poor quality and unsafe care provided to care home residents can lead to significant patient harm and even mortality.
- Care home residents are twice more likely to experience emergency admissions than the rest of the population over the age of 75 years and 40% of them experience adverse events within 45 days after hospital discharge.
- Studies in upstream health care systems indicate that teamworking factors, communication, information flow, access and care planning, patient characteristics, as well as task performance may contribute to safety incidents.
- These factors have been used as an empirical basis for generating a framework or of contributory factors to patient safety incidents in the hospital setting.

Why is it important (2)?

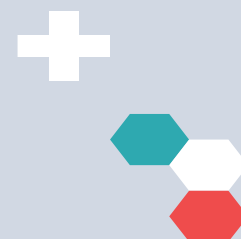
- There is a lack of consensus over the contributing factors to patient safety in care homes, with aspects such as organisational, resident characteristics and access to health care thought to contribute.
- Safety challenges are likely to be different in care homes where health and personal care is from multiple care providers, with a lack of continuity and the residents themselves being largely unable to navigate the health system independently or express their concerns effectively
- There is a lack of a framework to guide policy makers on which safety factors to target for improving patient safety in care homes.

Aim & Focus

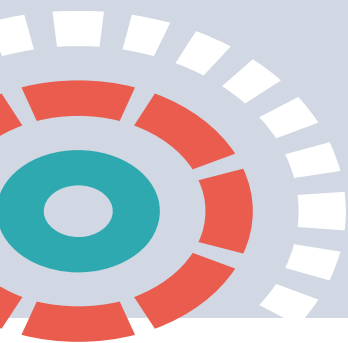
To produce a clearly defined framework which describes, hierarchically ordered from proximal (sharp end) to distal (latent) contributory factors to patient safety incidents in care homes that feature more strongly in the literature.

Contributory factors definition

- Contributory factors were defined as *‘any active failure at individual, institutional or national level which threatened the provision of safe care to residents’*,
- Contributory factors also included environmental hazards and resident characteristics.



Methods



Search Process

Search Strategy

- Medline, Embase, PsychINFO and CINAHL in September 2021.
- Three blocks of search terms with Mesh terms and keywords: Patient Safety, System/Contributory Factors and Care Homes.
- Grey literature through running a number of ad hoc searches using the three search terms in Google scholar.

Inclusion criteria

- Studies focusing on factors contributing to safety incidents in older residents (≥ 65 years) in care homes, nursing or residential
- Study designs included both quantitative (including randomised controlled trials, cohort studies, cross-sectional, and quasi-experimental studies), mixed-methods, qualitative assessments and systematic reviews.

Data selection and extraction

Data selection

Screening was conducted in two stages and was managed through Covidence. The eligibility of titles and abstracts were examined by independent pairs of four reviewers and full-text screening was completed by two reviewers based on criteria in used in a previous review. Disagreements were resolved by discussion and the involvement of a third reviewer.

Data extraction

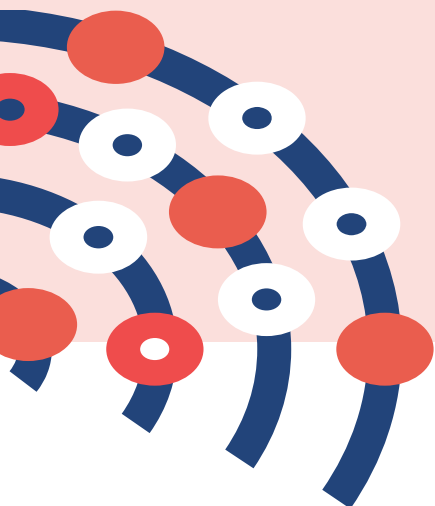
Key information extracted from studies were: Study designs, settings, participant demographics, and contributory factors to resident safety.

Domains of contributory factors to resident safety were first coded by two independent reviewers.

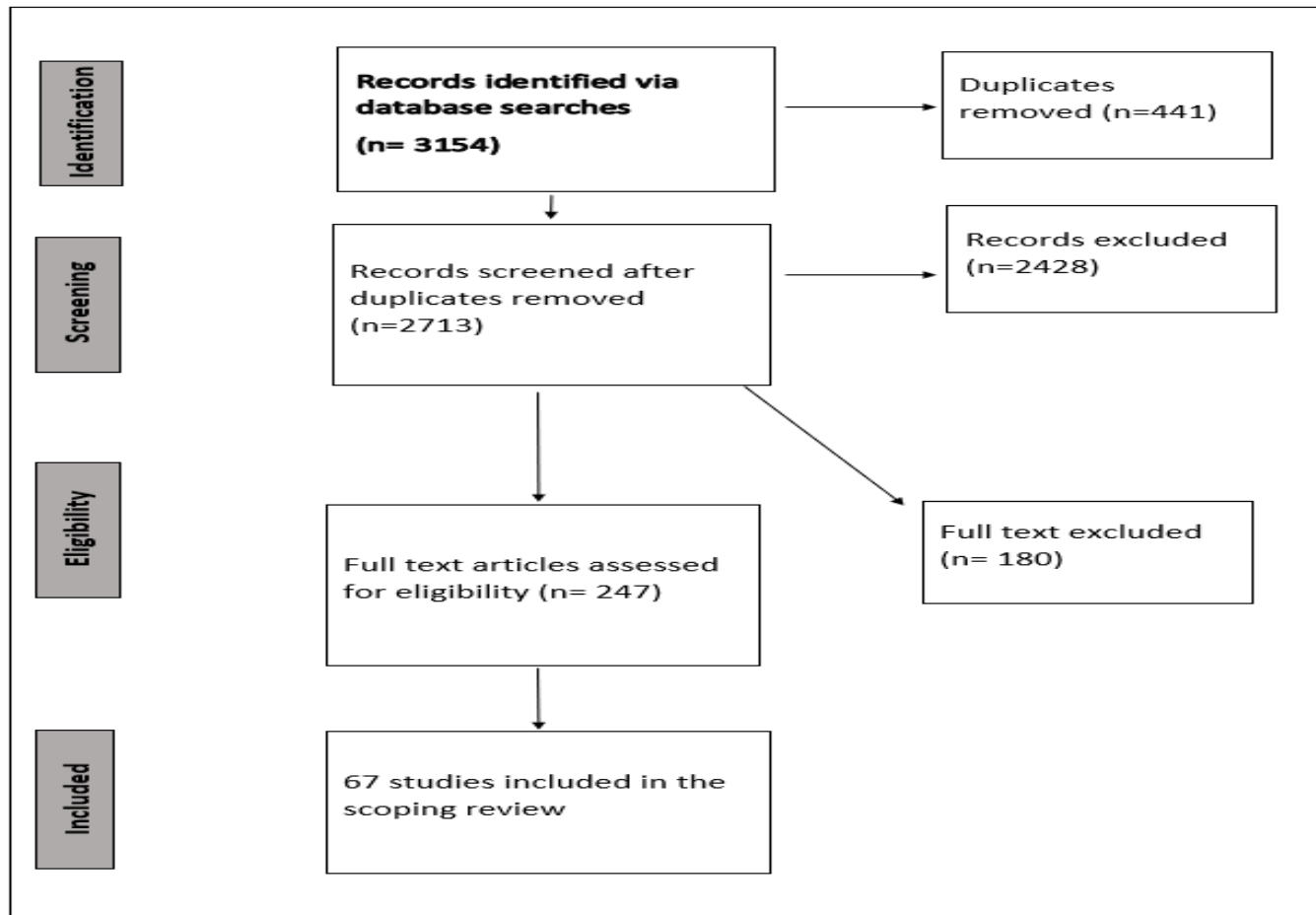
Coding was further validated using 10% of the articles by two independent reviewers and clinicians who were experienced in the care of the elderly to ensure a consistent approach.



Results



PRISMA Flow Chart



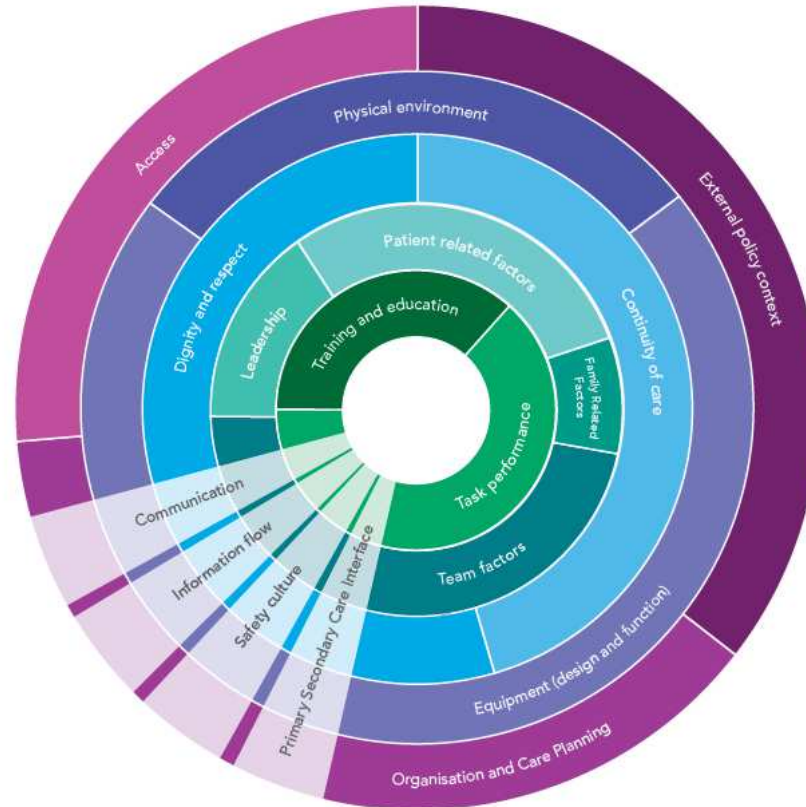
Safety domains identified in the literature

Safety domains	Number	% of all factors
Task performance	54	15.79%
Team factors	31	9.06%
Training and education	31	9.06%
Communication	30	8.77%
Organisation and Care Planning	29	8.48%
External policy context'	27	7.89%
Other	25	7.31%
Access	20	5.85%
Information flow	19	5.56%
Patient related factors	19	5.56%
Safety Culture	18	5.26%
Primary Secondary Care Interface	14	4.39%
Equipment (design and function)	14	4.09%
Unable to code	11	3.22%
Dignity and respect	6	1.75%
Physical environment	6	1.75%
Continuity of care	5	1.46%
Leadership	5	1.46%
Family Related Factors	2	0.58%
Total	342	100.00%

Definitions of key domains

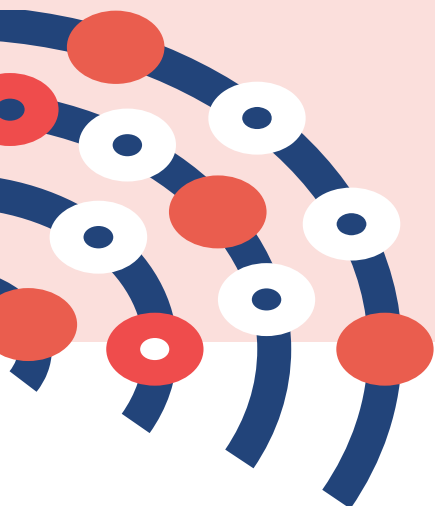
Domain	Definition
Communication	Effectiveness of the exchange and sharing of information between staff, patients, groups, departments and services
Information flow	The flow of information between different healthcare settings and/or different health care professionals
Family related factors	Family related factors refer to those features of the family that make caring for their family members more difficult and therefore more prone to error.
Task performance	Skill and competence of care home staff when carrying out a task
Team factors	Any factor related to the working of different professionals within a group which they may be able to change to improve patient safety
Training and education	Access to correct, timely and appropriate training both specific (e.g. Task related) and general (e.g. Organisation related)

Contributory Factors to Safety Framework Diagram





Discussion



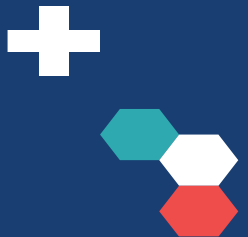
Discussion

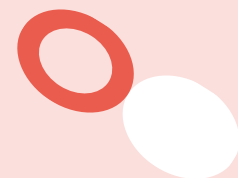
- The synthesis of the contributory factors into 18 safety domains demonstrates the multifactorial nature of resident safety ranging from national policy to individual resident and staff factors. The five most common safety domains were task performance, team factors, staff training and education, communication and organisation and care planning.
- The developed framework
 - ✓ can be used in real life practice to allow care home staff to examine and improve the safety of their home, and promote effective organisational safety learning.
 - ✓ utilised as the backbone of a tool for residents and informal carers to rate the safety their care home.
 - ✓ inform the development of intervention strategies to improve safety by targeting the most important contributory factors to patient safety incidents and
 - ✓ guide the measurement tools used to evaluate policy and service level interventions.

3. Using Consensus Methods To Develop A Resident/Relative Measure Of Safety (RMOS) In Care Homes

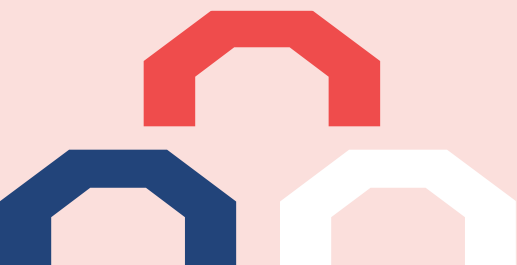
Dr Natasha Tyler (PhD)

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Introduction



Why is it Important?

Older people in care homes are particularly vulnerable to experiencing patient safety incidents and are twice more likely to experience emergency hospital admissions than the rest of the population over the age of 75 years.



Why is it important?

- Most information recorded about safety is in the form of incident reporting and from the perspective of professionals
- Most residents and/or their key informal carers (i.e. relatives/friends) are able to provide feedback on patient safety and can play a vital role in the success and longevity of patient safety improvement



Patient (Resident) Reported Safety

- Our teams previous work has successfully developed patient reported measures of safety in primary care and hospitals using questionnaires.



Previous Work: Primary Care Measure of Safety

Completing the questionnaire

Please read each statement carefully, keeping in mind your current visits to this general practice within the last 12 months and circle one option for each question.

If you have had no experience of a statement, please circle N/A, "not applicable".

If you do not know the answer please tick, "Don't know".

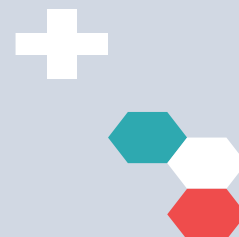
This will take you between 10 to 15 minutes to complete.

Please indicate your level of agreement with the following statements

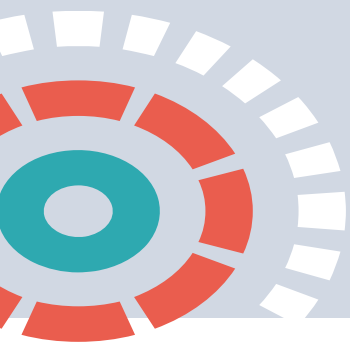
	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree	Not Applicable	Don't know	Additional Comments
1. I was always treated with dignity and respect	1	2	3	4	5	N/A		
2. The doctor...								
a. Always considered what I want for my care	1	2	3	4	5	N/A		
b. Did not have the skills, experience or knowledge to correctly manage my health condition	1	2	3	4	5	N/A		
c. Always seemed to have the right information after I received treatment elsewhere	1	2	3	4	5	N/A		
10. I was able to access the after hours service when needed	1	2	3	4	5	N/A		
11. I had enough time during the consultation with a health care professional	1	2	3	4	5	N/A		
12. I knew who to go to in the practice if I needed to ask a question	1	2	3	4	5	N/A		
13. If I was referred important information about my care was passed on / made available	1	2	3	4	5	N/A		
14. Equipment needed for my care was always working properly	1	2	3	4	5	N/A		

Aims & Focus

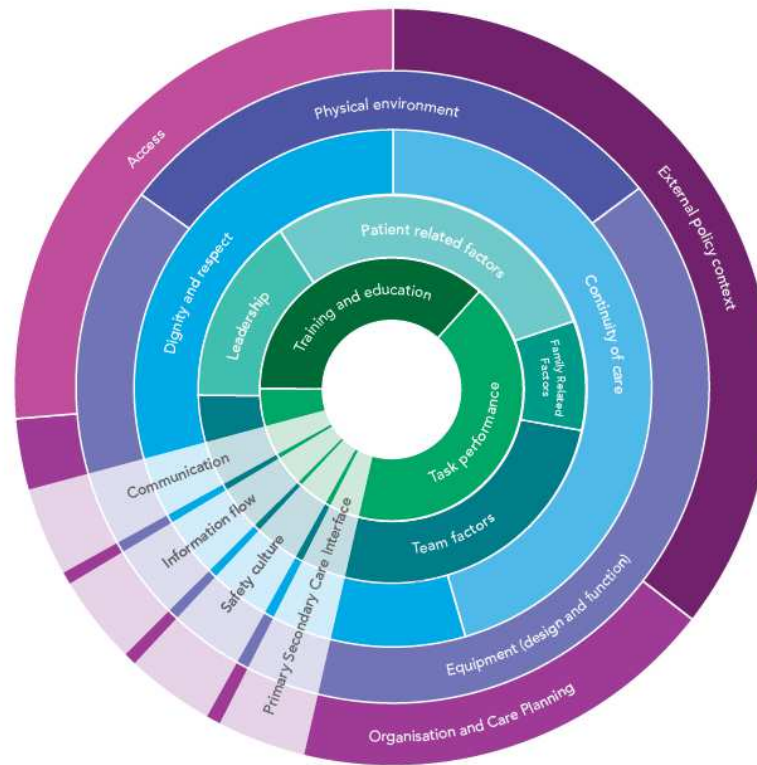
1. To develop a Patient Measure of Safety (as in a questionnaire) for care homes.
2. To adapt the PC PMOS (Primary Care - Patient Measure Of Safety) questionnaire so it is more relevant to residents of nursing/residential care homes.

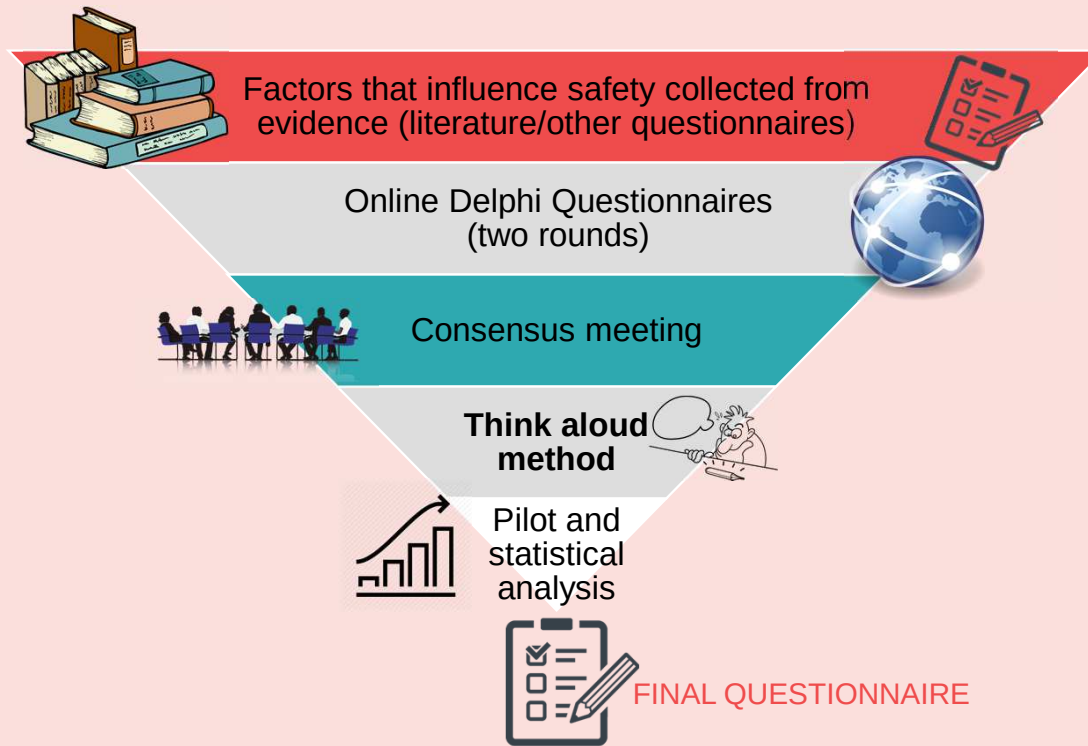


Methods



Previous Work: Evidence Synthesis Contributory Factors to Safety



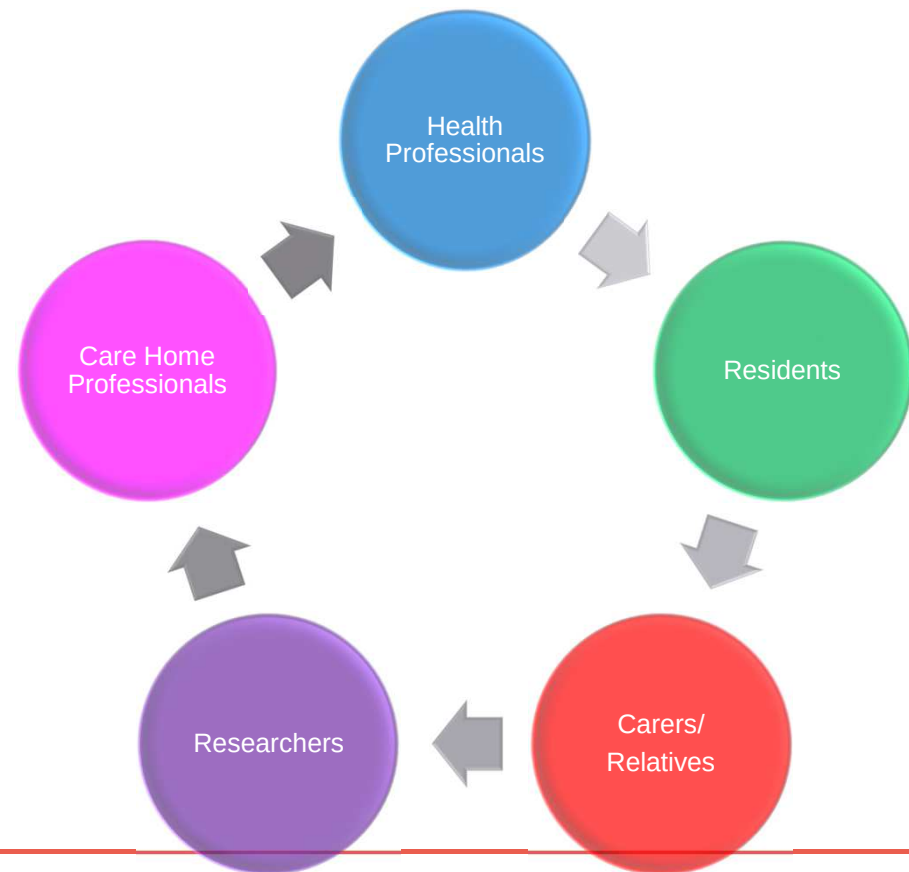


Delphi process

I am aware of how to report a complaint if I am unhappy with the care I receive

There was not enough space for staff to safely complete their jobs

'I have always felt that staff listen to me about my concerns'

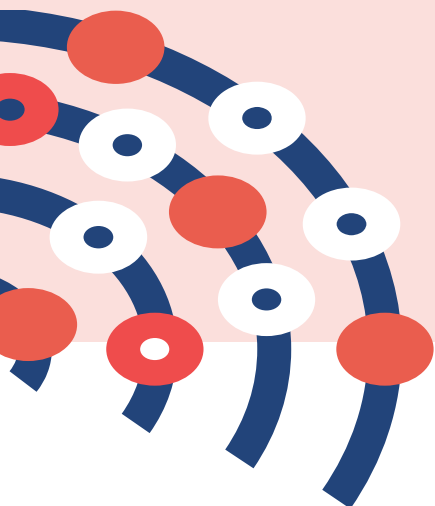


Delphi Process

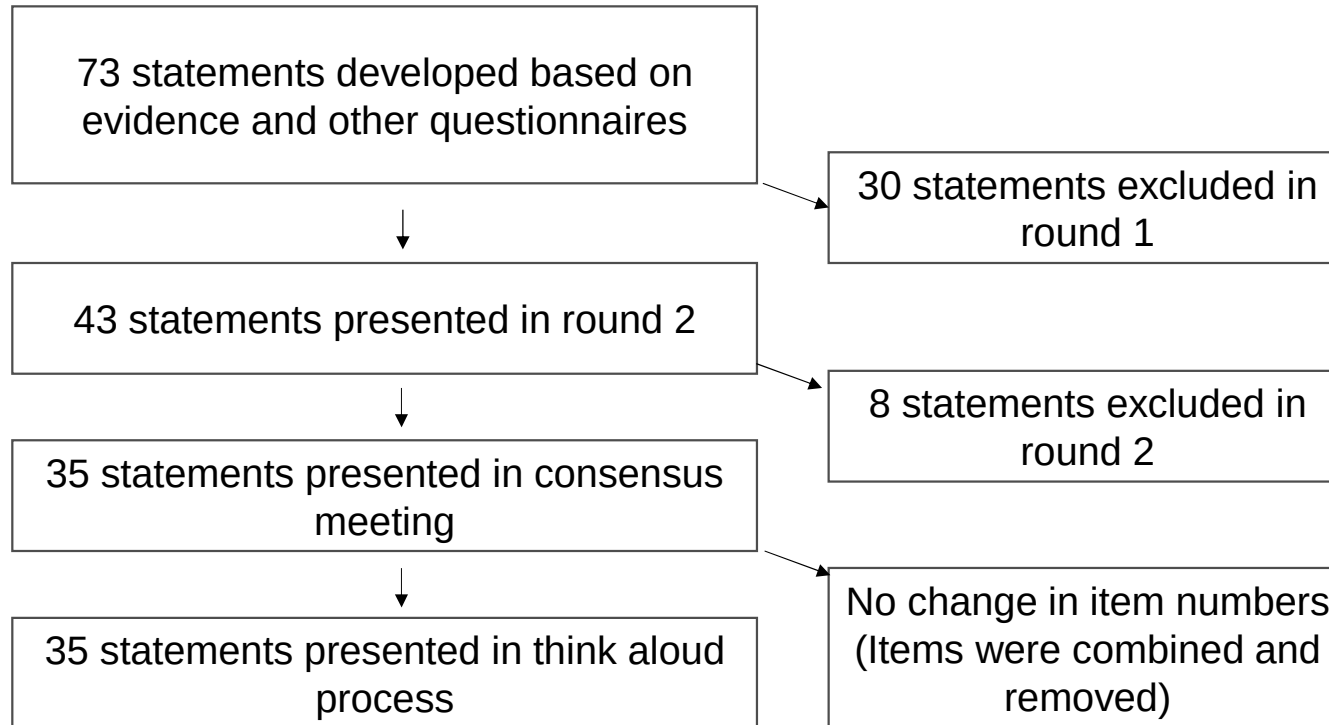
- Panel of 28 members (in round 2)
- 2 rounds of voting on statements
- Items with low levels of consensus in round one removed



Results



Results



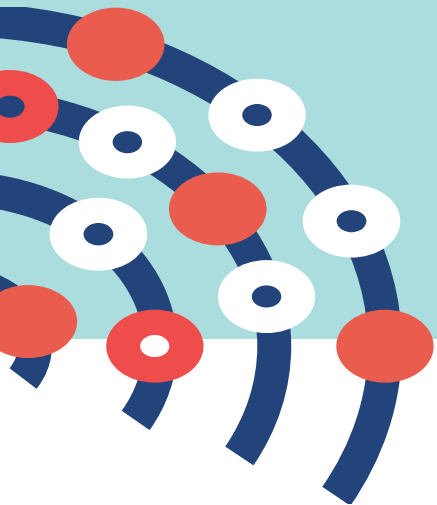
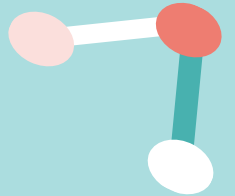
Example questions that most of the panel agreed are good...

Item	Percentage Agreement (r2)
'I have always felt that staff listen to me about my concerns'	93%
'I am given the option to involve my family or loved ones in my care'	100%
'I was always treated with dignity and respect'	96%
'Information regarding results or medication changes occurring during my last hospital stay was available to care home staff'	96%
'I am aware of how to report a complaint if I am unhappy with the care I receive'	96%
'I am aware of how to raise any safety concerns regarding a staff member's behaviour'	96%
I am able to contact my family or friends whilst in the care home'	96%
'Visiting health care professionals (e.g. doctors and nurses) always know important information about my care'	93%
'Care home staff communicate clearly to all visiting health care professionals (e.g. Doctors and Nurses)'	93%
'Doctors and Nurses involved in my care knew enough about my health condition'	93%

Example questions that fewer people thought were good...

Item	Median	Percentage Agree (r1)	Percentage Disagree (r1)
I always understood the information I was given about my care	8	72.09	11.63
A doctor changed an aspect of my care and the care home staff did not know about it	9	65.11	16.28
Staff gave me conflicting information about my care	7	55.81	30.23
I needed medical advice and I did not receive it in a timely manner	8	65.11	20.93
Too few staff meant that things didn't get done on time e.g. feeding patients, administering medications	8	76.74	13.95
Care home staff were unable to get help from other care home staff when they asked for it	8	62.79	16.27
I always know the roles of the care home staff looking after me are (e.g. nurse, care assistant etc)	7	55.81	16.28
I didn't know who to go to if I needed to ask a question	8	67.44	18.6
I have always known who is responsible for my care	8	76.74	6.98
If I was unable to attend hospital appointments then I received home visits from health care specialists (e.g. geriatricians, psychiatrists)	9	76.74	6.98

Preliminary Findings from Think Aloud Study



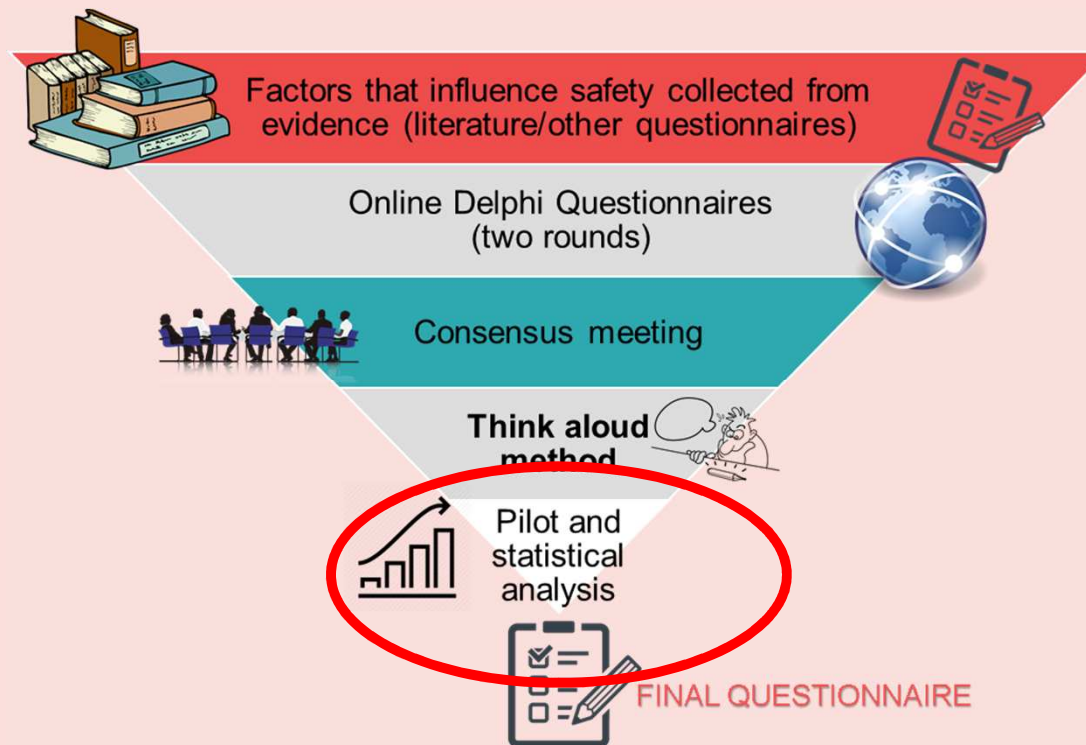
Who will complete the questionnaire

- We originally planned for this to be a resident measure of safety completed by the resident with some help from relatives where necessary
- Our stakeholder work and think aloud has revealed that residents (and their carers) feel this type of questionnaire may be too complex or time consuming and residents might not be motivated to complete it
- We are currently in the process of discussing whether this should be a relative/carer only tool or whether we could make adaptations to make it more resident friendly
- It would be great to get some feedback

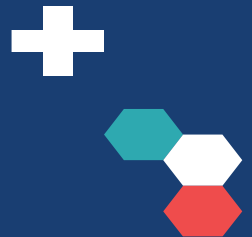
Some Questions are Difficult for Relatives to Answer

- Evidence suggests that when or people receiving care have adequate knowledge and information about their care, they feel safer
- Relatives struggled to answer questions about information and knowledge that residents or professionals have, for example:
 - Information regarding my relative/friend's last hospital visit (e.g. test results or medication changes) were available to care home staff
 - My relative/friend has been informed of any outbreaks of infections in the care home and the action plans to control further spread

Future work



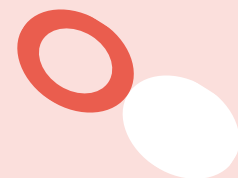
Email: Natasha.tyler@Manchester.ac.uk



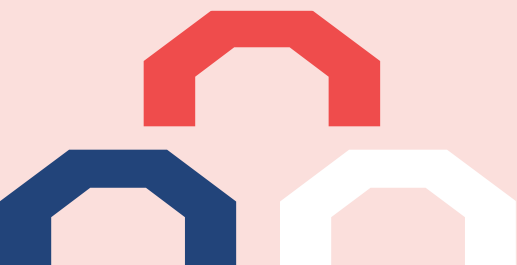
4. Transitional care interventions for older people living in long-term care facilities

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Introduction

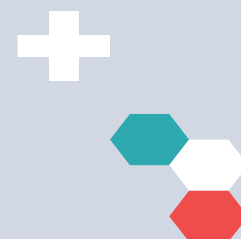


Transitional care for older people living in long term care facilities (LTCF)

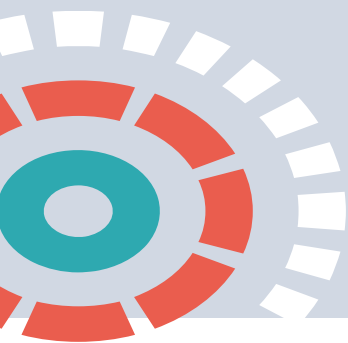
- LTCF residents aged 75+ are frequent users of hospital services and x2 more likely to experience emergency admissions than non-LTCF residents
- 67% of admissions are potentially avoidable
- Improving quality of transitions for people in LTCFs is a major challenge for healthcare systems but necessary

Aims

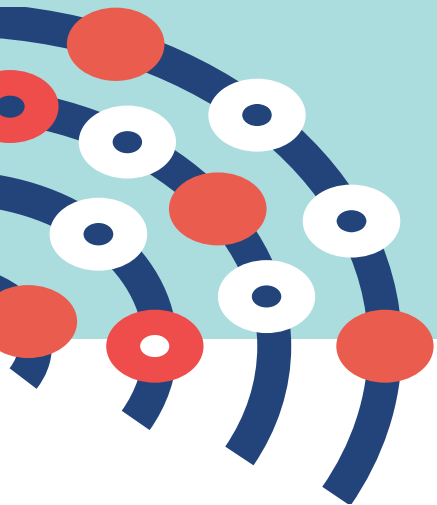
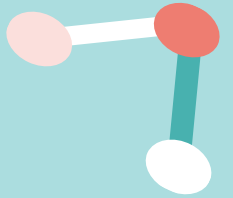
- Examine the effectiveness of transitional care interventions for older people (aged 65+) living in LTCFs and staff
- Explore factors that may determine the effectiveness and implementation of transitional care interventions for people living in LTCFs
- Identify aspects of the transitions pathway where safety issues are most acute and/or most amenable to measurement



Methods



Systematic review



Search process

Search Strategy

- Bibliographic databases: Medline, Embase, PsychINFO, CENTRAL, CINAHL
- Inception – 2021
- Grey literature searches using Google Scholar
- CLUSTER methodology used to search for qualitative studies and process evaluations

Inclusion criteria

- Controlled intervention designs
- Transitional care interventions
- Residents 65+ living in a long term care facility

Search process

Data selection/ extraction

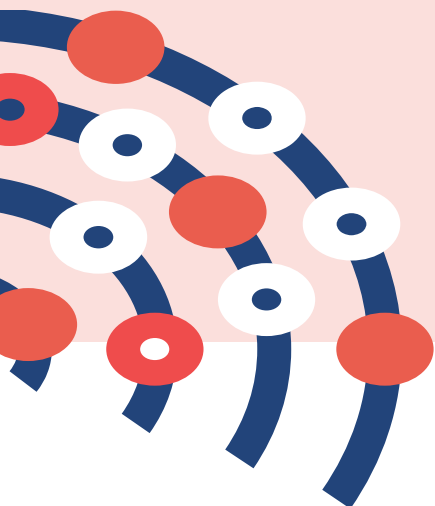
- Two stage screening process
- Data managed in Covidence
- Eligibility assessed by independent pairs (3 reviewers in stage 1 and 6 reviewers in stage 2)
- Disagreements resolved by discussion

Analysis

- Meta-analysis
- Data transformed into a standard effect size (standardised mean difference) or logs odds scale
- Sub-group analysis
 - ✓ involving primary care/community practitioners
 - ✓ having one or more areas of focus (e.g. resident, system or staff)



Results



Search Results:

Key characteristics

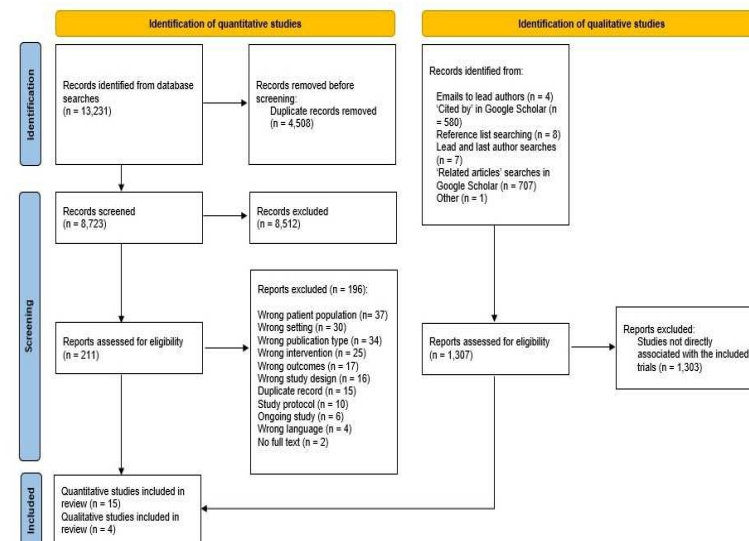
- Country: 10 Australia, 3 USA
- Design: 6 RCTS
- Sample: 32,722 participants/records

Types of transition targeted

- Hospital to care home: 10
- Care home to hospital: 4
- Both: 1

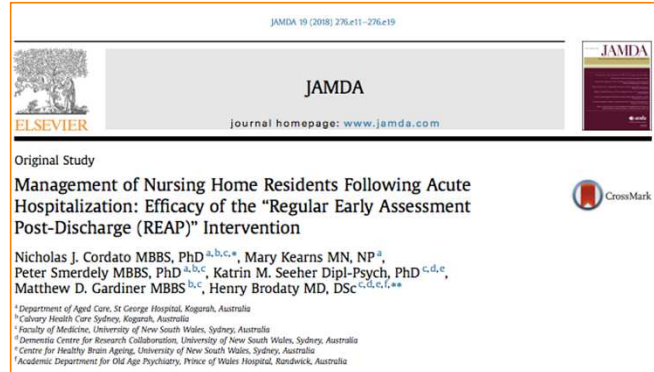
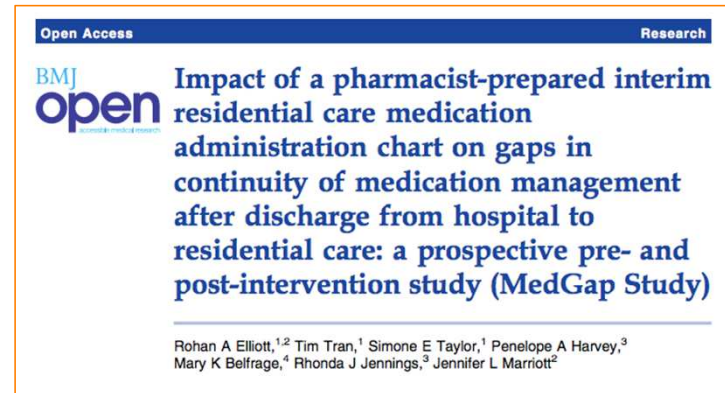
Type of intervention

- Focused on: 5 system, 3 residents, 1 staff, 6 combination



From: Page MJ, Moher D, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org>

Search Results:



Results (1)

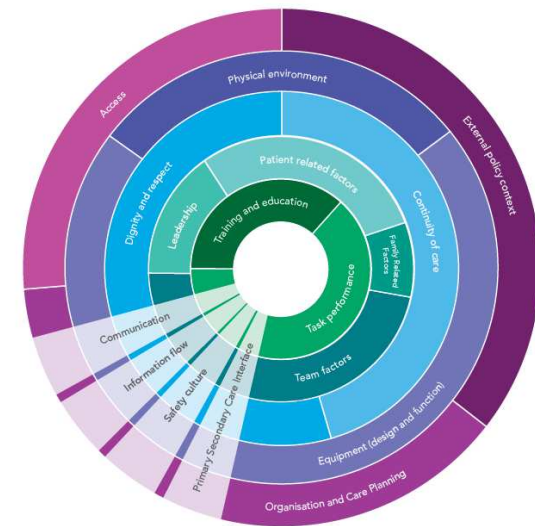
Transitional care interventions associated with a:

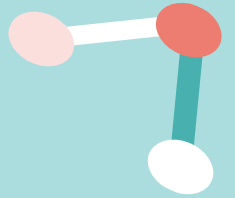
- **reduction in readmissions to hospitals** (n=11; OR=1.48, 95% CI= 1.01 to 2.17; $I^2= 40$ (0 to 66) %)
- **reduced length of stay in ED** (n=3; SMD=-3.00, 95% CI=-3.61 to -2.39; $I^2=99$ (98.4 to 99.4) %).
- Older people allocated to transitional care interventions were **1.7 times less** likely to be readmitted to hospital or an ED compared to those allocated to control groups (N=14; OR=1.66, 95% CI= 1.18 to 2.35; $I^2= 81$ (70 to 88) %)

Results (2)

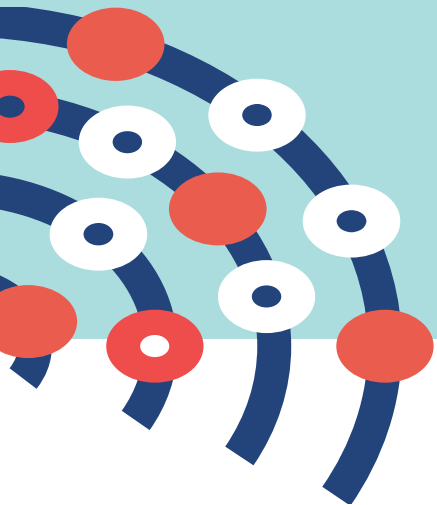
Factors that may determine the effectiveness and implementation of transitional care interventions:

- Quality of communication and role clarity of staff members across involved settings
- Quality of information flow/referral pathways
- Engaging community/primary care practitioners





Qualitative research study



Semi-structured interviews

Sample

- Participants: n= 25
- Groups: 10 care home staff, 7 health care staff, 7 carer/ family members, 1 resident,

Analysis

- Zoom recorded interviews transcribed verbatim
- Framework analysis using the contributory factors domains
- Sub-themes within domains identified inductively

Results (1)

Examples of interventions to improve transitional care

Information flow

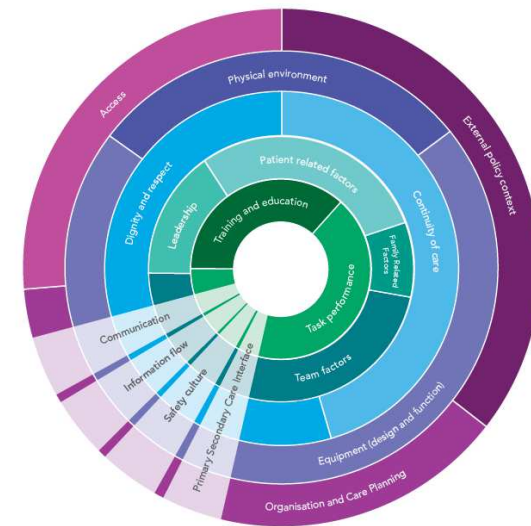
- Electronic record of medical info/ discharge summary that can be shared across providers
- Improved discharge summary/ highlighting changes on the discharge summary
- Personal/social information sharing an 'about me' card/form

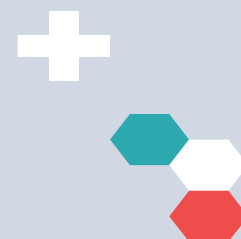
Communication

- Improved communication through a standardised discharge process

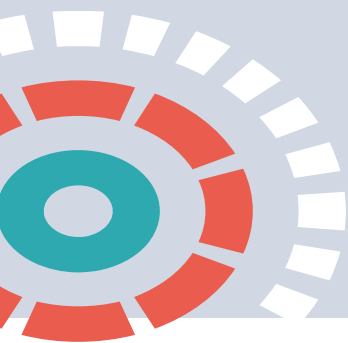
Patient-related factors

- Involving carers in discharge process





Discussion

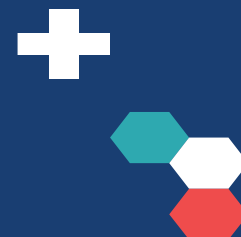


Discussion

- Older people living in LTCFs experience fewer readmissions when they participate in a transitional care intervention compared to usual care
- The effectiveness of transitional care interventions for older people living in LTCFs may be improved by (a) promoting high quality communication and role clarity among staff members across involved settings, and (b) building the infrastructure for better information flow/referral pathways
- In line with systematic review qualitative synthesis findings, the key stakeholder interviews have suggested interventions that primarily target communication and information flow

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Thank you for
listening

