THE PRIORITISATION OF CARE IN RESIDENTIAL AGED CARE FACILITIES: A MULTI-STAKEHOLDER APPROACH

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STATEMENT OF ORIGINALITY

I hereby declare that this thesis is a result of my own work, and that this work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Signed:

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LIST OF ABBREVIATIONS

AIN	Assistant in Nursing
ANMF	Australian Nursing and Midwifery Federation
BERNC-NH	Basel Extent of Rationing of Nursing Care-Nursing Home
COREQ	Consolidated Criteria for Reporting Qualitative Research
GDP	Gross Domestic Product
HREC	Human Research and Ethics Committee
MQRTP	Macquarie University Research Training Program
NSW	New South Wales
OECD	Organisation for Economic Co-operation and Development
PICF	Participant Information and Consent Form
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QLD	Queensland
RAC	Residential Aged Care
RACF	Residential Aged Care Facility
RN	Registered Nurse
RQ	Research Question
RTP	Research Training Pathway
SRQ	Study Research Question

GLOSSARY[a]

Bedside priority-setting: A type of micro-level prioritisation that encompasses decision-making about routine daily care and results in the temporal ordering of care tasks.

By-hand rotation: A manual type of rotation, performed after factor extraction, that allows the researcher to determine where factors are positioned. By-hand rotation is also referred to as judgmental rotation.

Centroid factor analysis: A factor extraction technique that allows for multiple possible solutions to be considered.

Concourse: A comprehensive collection of socio-culturally embedded statements (or images, sounds, smells, text) capturing the breadth and depth of a topic of interest. The concourse may be sampled from a variety of sources including interviews, focus groups, a review of the literature, popular media, or observations.

Condition of instruction: The instruction presented to participants to guide the rank-ordering of the Q sort deck.

Consensus statement: Cards that do not significantly distinguish between a pair of factors, i.e., cards that are ranked similarly across factors.

Consumer: A healthcare service user, for example, a patient or resident. For the purpose of this thesis, family members are considered consumers as they often engage with residential aged care facilities on behalf of residents.

Crib sheet: An organised summary of key data (e.g., distinguishing statements and consensus statements) used to interpret factors/viewpoints in Q methodology.

Distinguishing statement: A card ranked significantly differently in one factor compared to all other factors.

Errors of commission: A type of error in which care is carried out incorrectly.

Errors of omission: A type of error in which care is incomplete, i.e., a failure to carry out care activities in full.

Factor: A latent variable derived from significantly correlated Q sorts that represent shared meaning (viewpoints) amongst a group of participants.

Factor array: A representative Q sort, calculated as a weighted average of the Q sorts loading on a factor.

Factor extraction: The statistical process of identifying and pulling out factors (shared meaning) from a dataset.

Factor solution: The outcome of factor extraction, i.e., the number of factors retained and the Q sorts that load on each factor.

Handover: The act of transferring information and/or responsibility to another person. In healthcare, formal handovers refer to the transfer of information and responsibility between healthcare workers, for example, from a team ending their shift to a team commencing their shift.

High care: Care provided to residents who have been deemed to have 'high' needs in terms of complexity of healthcare, cognitive impairment or behavioural problems, and dependency on assistance with activity of daily living.

Holistic: Acknowledgement that parts of a whole are interrelated and can only be understood with reference to the whole. In healthcare, a holistic approach might refer to consideration of the whole person (e.g., physical, mental, spiritual, emotional wellbeing), or care experiences in their entirety.

Individualised care: A person-centred approach to care where healthcare workers learn about consumers' needs, capabilities, experiences, life histories, behaviours, feelings, perspectives and preferences, and then use this information to tailor care delivery for each individual consumer. Individualised care is also known as tailored care or personalised care.

Integrated care: The bringing together of services, healthcare professionals and care domains so that care is delivered in a coordinated and consistent way.

Integrative review: An inclusive and comprehensive review of the literature carried out in a systematic way. Integrative reviews often include the integration of qualitative, quantitative and mixed-methods studies. This type of review lends itself to multiple and broad research questions.

Loading on a factor: Q sorts that are significantly correlated with a factor.

Missed care: Care that is fully or partially omitted, delayed or left undone.

Perceived role responsibilities: The scope of duties that an individual considers to be their responsibility based on their job position.

Person-centred care: A consumer-centric approach to healthcare in which patients or residents are empowered partners in their care. Person-centred care includes involving consumers in planning and decision-making; treating them with respect, dignity and compassion; and considering and responding to their preferences and priorities for their care. Person-centred care is also referred to as patient-, client-, or consumer-, centred, directed, or driven care.

Post-sorting interviews: Questions asked of a participant after the completion of their Q sort regarding the placement of cards.

Preference: The consideration of something as more desirable than alternative options; a want for something.

Principal component analysis: A factor extraction technique that produces the mathematically best solution.

Prioritisation: Hierarchical decision-making about the urgency/importance of objects concepts, ideas, services, persons or actions.

Prioritisation dilemma: A situation where an individual is required to make a prioritisation decision, for example, choosing between patients who have equally important needs.

Priority/priorities: The level of importance placed on an object, concept, idea, service, person or action. A person's highest priority refers to something considered more important than anything else.

P set: The participant group in a Q methodology study.

Q factor analysis: The analysis of Q data using by-person factor analysis (inverted factor analysis), in which participants, or more specifically, their Q sorts, are treated as variables.

Q methodology*:* A method used to systematically study subjectivity by identifying groups of participants who have a shared perspective or opinion on a particular topic. Q methodology involves the integration of quantitative and qualitative data via a card sorting activity and subsequent Q factor analysis.

Q set: A reduced subset of items derived from the concourse, to be rank-ordered by participants.

Q sort: The data output from Q sorting, i.e., a completed pattern of rank-ordering the Q sort deck on the Q sort grid.

Q sort deck: The presentation of the Q set on a deck of cards.

Q sort grid: A forced-choice distribution, presented as a grid, in which to rank-order the Q sort deck on. The grid comprises a ranking scale and value anchors, for example, "Least important" (-4) to "Most important" (+4).

Q sorting: The action of rank-ordering the Q sort deck on the Q sort grid.

Rationing of care: The action of withholding or failing to carry out lower priority aspects of care in favour of attending to higher priority aspects of care, due to a lack of resources. Rationing of care is also referred to as bedside rationing or implicit rationing.

Resident: A person living in a residential aged care facility.

Residential aged care facility: A place of residence for older adults that offers nursing care, assistance with daily living and psychosocial care. These facilities are also known as assisted-living facilities, aged care homes, nursing homes, long-term care facilities, skilled-nursing facilities, old people's homes or homes for the aged, depending on country and context.

Rotation: The correlations between Q sorts and factors can be spatially mapped, where factors are considered axes in a multidimensional space and the correlations considered coordinates. In the context of Q methodology, rotation refers to moving these coordinates around a central point while maintaining their relationships in order to make the factor solution more interpretable. The structure of the factor solution does not change, but rather the angle from which the solution is viewed changes.

Selfhood: The sense of personal identity that a person holds based on their values and beliefs.

Single-assist: The requirement that a certain patient/resident needs at least one healthcare worker to assist them with specific aspects of care, for example, using the toilet.

Skill-mix: The composition of staffing in a facility based on skill, training or job position, e.g., the ratio of Care Assistants to Registered Nurses.

Study variance explained: In a Q study, the portion of the variability, expressed as a percentage, that can be attributed to the shared views held by a group of participants, i.e., common variance.

Think-aloud task: An activity requiring participants to verbalise their decision-making and thought processes during a study.

Two-assist: The requirement that a certain patient/resident needs at least two healthcare workers to assist them with specific aspects of care, for example, using the toilet.

Unfinished care: A collective group of concepts comprising prioritisation, rationing and missed care. Unfinished care is a process that that ultimately leads to neglect.

Varimax rotation: An automatic type of rotation, performed after factor extraction, that maximises the amount of study variance explained.

Viewpoint: An opinion or perspective on a particular topic. In Q methodology, a factor's viewpoint refers to the shared perspective that a group of participants who significantly load on to the same factor have.

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[a] Definitions are based on a variety of materials from the Australian Commission on Safety and Quality in Health Care,[1,2] the Australian Government,[3,4] Barbosa and colleagues,[5] Brown,[6] Buchan and Dal Poz,[7] Charters,[8] Collins Dictionary,[9,10] Delaney,[11] Eccles and Arsal,[12] Encyclopedia.com,[13] Fazio, Pace, Flinner and Kallmyer,[14] Health Consumers NSW,[15] Hendry and Walker,[16] Jones, Hamilton and Murry,[17] Kalisch and colleagues,[18-20] Merriam-Webster,[21] Paige and Morin,[22] Radwin and Alster,[23] Schubert et al.,[24] Suhonen et al.,[25] Watts and Stenner,[26] Whittemore and Knafl,[27] Willis and colleagues,[28] and the World Health Organization.[29,30]

LIST OF ORIGINAL PUBLICATIONS PRESENTED IN THIS THESIS

This thesis is based on the following original publications, which are referred to in the text by Roman numerals. Publications are reproduced with permission from their copyright holders.

I **Ludlow, K.**, Churruca, K., Mumford, V., Ellis, L.A., Testa, L., Long, J., Braithwaite, J. (2019) Unfinished care in residential aged care facilities: An integrative review. *The Gerontologist,* gnz145. doi: 10.1093/geront/gnz145

II **Ludlow, K.**, Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2019) Understanding the priorities of residents, family members and care staff in residential aged care using Q methodology: A study protocol. *BMJ Open*, 9:e027479. doi: 10.1136/bmjopen-2018-027479

III **Ludlow, K.**, Churruca, K., Mumford, V., Ellis, L.A., Braithwaite, J. (2020) Staff members' prioritisation of care in residential aged care facilities: A Q methodology study. *BMC Health Services Research,* 20:423. doi: 10.1186/s12913-020-05127-3

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V **Ludlow, K.**, Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2020) Family members' prioritisation of care in residential aged care facilities: A case for individualised care. *Journal of Clinical Nursing,* 29:3272–3285. doi: 10.1111/jocn.15352

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The table below summarises contributors' division of labour in the co-authored articles presented in this thesis. Details of authors' contributions are specified within each article.

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Conception	KL	KL	KL	KL	KL	KL
Study design	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM
Participant recruitment	N/A	N/A	KL	KL	KL	KL
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Writing the article: subsequent versions	JB, JCL, KC, KL, LAE, LT, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM	JB, KC, KL, LAE, VM
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[b] These are 2017-2020 outputs that are relevant to the overarching topic of healthcare systems improvement but are not direct outputs from this thesis.

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Ludlow, K.,* Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2019) Staff members' prioritisation of care in residential aged care facilities. Abstract: *The 18th National Conference of Emerging Researchers in Ageing*, Sydney, Australia, November 5. (See Appendix B).

Ludlow, K.,* Churruca, K., Ellis, L.A., Mumford, V. (2019) Care prioritisation by residents, family members and care staff in residential aged care: A Q methodology study. Poster: *ISQua's 36th International Conference,* Cape Town, South Africa, October 22.

(See Appendix C).

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*Presenting author

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Ludlow, K.,* Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2020) The influence of role division on staff members' prioritisation of residents' care. *Australasian Society of Behavioural Health and Medicine 2020*, Sydney, Australia, February 6. (See Appendix D for abstract). Prize: Best presentation by an early career researcher.

Ludlow, K.,* Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2019) Staff members' prioritisation of care in residential aged care facilities. *18th National Conference of Emerging Researchers in Ageing*, Sydney, Australia, November 5. Prize: Best oral presentation for a NSW-based Student. (See Appendix B for abstract).

Ludlow, K.* (2019) Prioritisation in residential aged care. *Three Minute Thesis (3MT)—Macquarie University Final*, Sydney, Australia, September 25.

Ludlow, K.* (2019) Prioritisation in residential aged care. *Three Minute Thesis (3MT)—Macquarie University Faculty of Medicine and Health Sciences Heat*, Sydney, Australia, September 5. Prize: Third place.

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Braithwaite, J.,* **Ludlow, K.**,* James, W., Herkes, J.,* Ellis, L.A., Churruca, K.*, McPherson, E. (2018) Accomplishing reform and systems improvement in international context: Learning about change within and across the borders of 60 countries. Co-presenter at the *International Organisational Behaviour in Healthcare Conference 2018*, Montreal, Canada, May 15.

*Presenting author(s)

Other Published works

Braithwaite, J., Churruca, K., Ellis, L.A., Long, J., Clay-Williams, R., Damen, N., Herkes, J., Pomare, C., **Ludlow, K.** (2017) Complexity Science in Healthcare – Aspirations, Approaches, Applications and Accomplishments: A White Paper. Australian Institute of Health Innovation, Macquarie University: Sydney, Australia. ISBN: 978-1-74138-456-7.

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THESIS ABSTRACT

Background: Neglect is a prominent concern in respect of older persons living in residential aged care facilities (RACFs). This thesis focuses on unfinished care which is a specific type of neglect encompassing prioritisation (internal process), rationing (action) and missed care (outcome). When faced with inadequate resources, healthcare workers must prioritise care by deciding what aspects of care are more or less important/urgent. Prioritisation can lead to rationing of care in which lower priority tasks are traded-off in favour of higher priorities, which can ultimately result in missed care; care that is omitted, delayed or left undone.

Rationale: Research on unfinished care in RACFs has predominantly focused on either rationing or missed care, with only two studies having investigated care prioritisation. In order to prevent missed care and subsequent negative consumer outcomes, a greater understanding of care prioritisation is needed. Previous research on prioritisation in RACFs has elicited the views of clinical staff members only and has not considered the perspectives of non-clinical staff members, residents and family members.

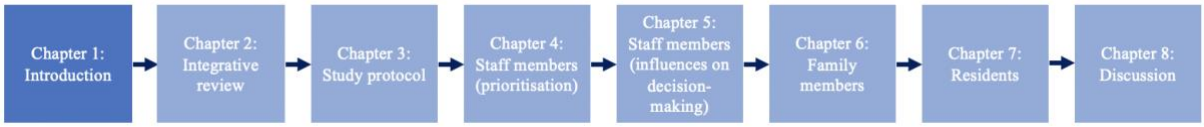
Objective: In order to address these knowledge gaps, this thesis aimed to investigate the prioritisation of care in RACFs from the perspectives of key stakeholders.

Research Articles: This thesis contains six articles. Article I is an integrative review that synthesised the empirical literature on unfinished care in RACFs and identified knowledge gaps that guided the research project. Article II is a study protocol that outlined the research materials, methods, data collection processes and analyses. Articles III-VI are empirical studies that explored care prioritisation from the perspectives of staff members (Articles III and IV), family members (Article V), and residents (Article VI).

Methods and participants: The research involved a card sorting activity using Q methodology, a think-aloud task, post-sorting interviews, semi-structured interviews and a demographic questionnaire. Participants were 32 staff members, 27 family members and 38 residents from five Australian RACFs.

Research findings: Findings revealed the situations in which prioritisation dilemmas arose for staff members, the types of care that were prioritised by each participant group, how each group prioritised care, and what influenced their prioritisation decisions.

Contributions of the thesis: The thesis provides insights into participants' experiences of prioritisation, unmet needs and missed care, and outlines systemic problems in RACFs that hinder safe, high-quality and person-centred care. This information led to the development of ten key recommendations for improving care in RACFs. The discussion chapter outlines specific contributions of the thesis to knowledge gaps, methodology, theory and practice, and presents implications for policymakers, care providers and consumers.



CHAPTER 1: INTRODUCTION

1.1. Introduction

Despite efforts to reform aged care services, the care provided to older Australians has been described as substandard and at times, neglectful.[31] This thesis looks at a certain type of neglect, errors of omission, in which there is a failure to fully carry out care.[18,20] Specifically, the thesis investigates the prioritisation of care in residential aged care facilities (RACFs) as part of an overarching process of unfinished care.[32] This chapter provides an introduction to some of the systematic shortcomings of Australia's aged care system, contributing to the neglect of older persons. It then defines the broad research field of unfinished care and the more specific research focus of care prioritisation. The chapter positions prioritisation within the research context of residential aged care (RAC) settings, leading to the rationale for the research, the thesis objective and research questions. The theoretical orientation of the thesis and an overview of the thesis structure is then presented, followed by final conclusions.

1.2. Background: Australia's aged care system

Like many countries, Australia is grappling with growing demands to care for its ageing population.[33-35] In recent years, Australia has undergone several reforms to improve its aged care system. These include the Living Longer Living Better reform, changes to the Home Care Package Program, a review of National Aged Care Quality Regulatory Processes, the establishment of the Aged Care Quality and Safety Commission, the introduction of new Aged Care Quality Standards and the ongoing Royal Commission into Aged Care Quality and Safety.[36-38] The Royal Commission was established in 2018 to investigate the quality and safety of care provided to older people receiving aged care services at home and in RACFs. Specifically, its purpose is to assess the degree to which consumers' needs are met, the extent of substandard care, causes of systemic failures and required actions to address deficiencies of aged care services.[39]

Even with the introduction of the improvement initiatives listed above, the Royal Commission's recent interim report labelled Australia's aged care system as a "shocking tale of neglect".[31(page 1)] The report described aged care services as "fragmented, unsupported … underfunded … poorly managed … unsafe and seemingly uncaring".[31(page 1)] Despite efforts

from aged care employees to provide safe and high-quality care, time pressures and high workloads often prevent them from achieving this.[17,31,32] The Royal Commission has identified several core problems with the current systems including inadequate staffing levels and workforce training, insufficient funding, a lack of transparency and accountability, ageism, and task-driven routines.[31] Ultimately, the Royal Commission to-date has demonstrated that Australians using aged care services are at risk of receiving inadequate care and having their needs neglected.

1.3. Defining the research field: Unfinished care

There are two types of errors that lead to inadequate, unsafe or low-quality care: *errors of commission* and *errors of omission*.[18,20] Errors of commission occur when care is carried out incorrectly, for example, when the wrong medication is administered to a patient.[18,20] On the other hand, errors of omission occur when care is incomplete, for example, when required medication is administered late, is only partially administered, or is not administered at all.[18,20] This thesis focuses on the latter of the two errors. Within the healthcare literature, errors of omission are referred to by various terms, outlined in Box 1.1. These terms are often used interchangeably with ambiguous boundaries between them.

Box 1.1. Errors of omission: Terminology

- [Nursing] Care/tasks left undone[40-43]
- Delayed Care[44]
- Missed care [18-20]
- Omitted [nursing] care[44,45]
- Omission(s)[44]
- [Implicit] Rationing [of care][24,46-48]
- Task incompletion[49]
- Unfinished care[17,40]
- Unmet [nursing care] needs[50]

In order to clearly define the research field, I considered how these terms were conceptualised by Jones, Hamilton and Murry's comprehensive review of unfinished nursing care, missed care, and implicitly rationed care,[17] Kalisch, Landstrom and Hinshaw's Missed Nursing Care Model[19] and Schubert et al.'s Conceptual Framework of Implicit Rationing of Nursing Care,[24] as well as how they have been used in the literature.[41,46,51,52] Following on from Jones et al., I adopted the overarching term *unfinished care* and developed a conceptual model, presented in Chapter 2. For the purpose of defining and explaining unfinished care, a simplified version of this model is presented as Figure 1.1.

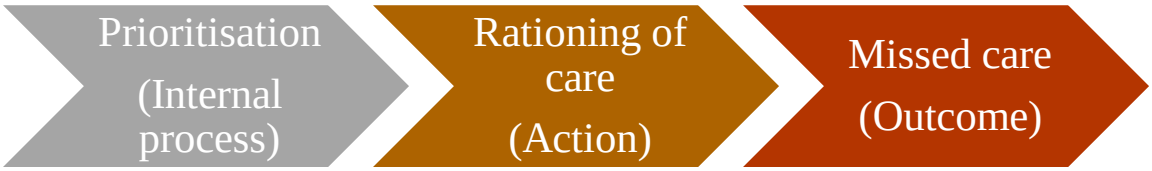


Figure 1.1. Simplified version of the unfinished care model

Source: Author's conceptualisation, adapted from Ludlow et al.[53]

The first stage of the unfinished care process is *prioritisation*. This is an internal process that requires decision-making about the importance and urgency of different care tasks.[16,19,24] Prioritisation leads to the action of *rationing of care*, in which higher priority tasks are carried out before lower priorities, which can ultimately result in the outcome of *missed care*. Missed care refers to "any aspect of required patient care that is omitted (either in part or in whole) or delayed".[19(page 1509)] Missed care has been associated with poor consumer outcomes including urinary tract infections in RACFs,[54] and medication errors, patient falls, pressure ulcers, critical incidents, nosocomial infections, higher odds of hospital readmission, low quality of care and decreased patient satisfaction in other healthcare settings.[17,41,46]

1.4. Defining the research focus: Prioritisation of care

The primary focus of this thesis is prioritisation, and rationing of care and missed care are secondary foci. While prioritisation can be understood from a variety of care provider and consumer perspectives, it has predominately been studied from the perspectives of healthcare workers.[16,25,55-58] Healthcare workers are responsible for caring for multiple patients/residents, often simultaneously, while also managing other obligations such as administrative duties.[16] In order to manage their workloads, healthcare workers must make decisions about the

priority of each task and each patient/resident. Prioritisation results in a temporal ordering of tasks, in which higher priorities are more likely to be attended to sooner than lower priorities.[16] While prioritisation is a necessary part of care delivery, ensuring that residents' most urgent care needs are met, prioritisation dilemmas can also lead to adverse resident outcomes when care is neglected.[19,24] This form of prioritisation, otherwise known as *bedside priority-setting*,[25] encompasses decision-making about routine daily care. Other forms of prioritisation, such as macro-level prioritisation (e.g., allocation of funding, access to services), prioritisation of research initiatives or interventions, and prioritisation in the context of end-of-life care, are outside the scope of this thesis.

1.4.1. Distinguishing between priorities and preferences

It is important to distinguish prioritisation/priorities from the closely related concept of *preferences*. While the two have been used interchangeably in the healthcare literature, there are nuanced differences between them. First, a preference refers to a like, want or desire for something,[10] whereas a priority refers to the consideration of something as more important or urgent.[9] Overlap between the two concepts can exist, for example, when a person prefers something because it is important to them. Second, unlike preferences, prioritisation requires an individual to hierarchically rank each option (e.g., tasks, patients/residents).[16] Figure 1.2. visually portrays the difference between preferences and priorities. On the left panel, priorities are determined by level of importance/urgency where option B is the highest priority, i.e., it is a higher priority than option C, which is a higher priority than option D, and so forth, with option E being the lowest priority. On the right panel, preferences are determined by level of desirability where options B and C are the strongest preferences and are equally desirable; they are more desirable than Option D, which in turn is more desirable than the weakest preferences of Options A and E.

While studying care preferences can generate useful knowledge, such as what consumers want for their care and which treatment options they prefer,[59-62] it may not tell us much about the context in which decision-making occurs. Prioritisation on the other hand, reflects the pressurised and resource-constrained environments of healthcare settings as it requires individuals to consider and rank-order aspects of care by level of importance or urgency relative to all other aspects of care.[16]

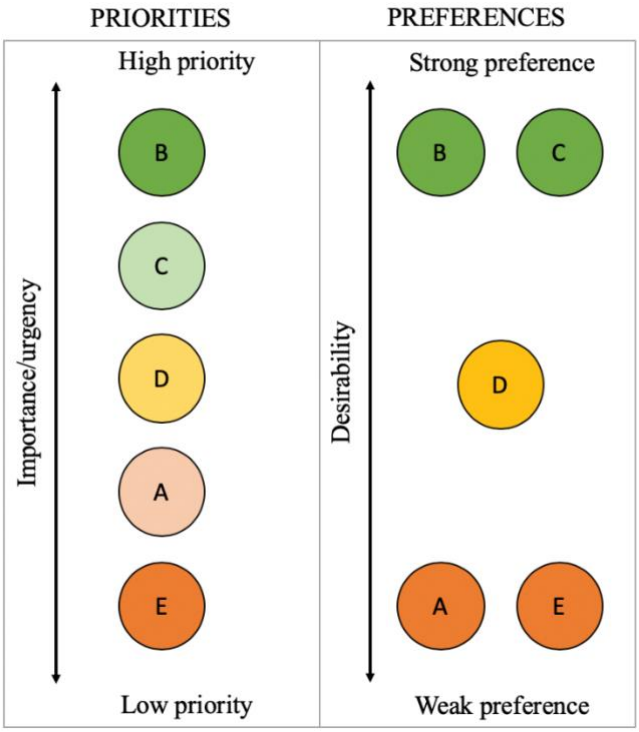


Figure 2.2. Priorities versus preferences

Source: Author's conceptualisation

1.5. The research context: RACFs

While the systemic problems outlined in section 1.2. are relevant to both home care and RAC settings, this thesis focuses on care provision in RACFs. RACFs have several contextual features, which in combination, can result in prioritisation dilemmas, thus making them susceptible to missed care. These features include the complex care needs of residents, the nature of care, and workforce issues.

Most older adults are admitted to a RACF as they are no longer able to be cared for by themselves, family and friends, or others in the community. The needs of residents are often complex, and include chronic conditions, co-morbidities, cognitive impairment, frailty and dependency. According to the Australian Institute of Health and Welfare, just under a third of residents in Australian RACFs as of June 2019 had what is deemed to be a 'high' care need in all three of the Aged Care Funding Instrument assessment domains: Activities of daily living, Cognition and behaviour, and Complex healthcare.[63] The majority of residents (87%) had at least one mental health or behavioural condition, with 53% having a diagnosis of dementia. Only 0.5%, 3.9% and 0.7% of residents had a 'nil' care need rating for Activities of daily living, Cognition and behaviour, and Complex healthcare, respectively.[63] Caring for multiple

residents with complex needs simultaneously creates situations in which staff members must prioritise certain residents, as well as care tasks, known as *prioritisation dilemmas.*

Unlike most other healthcare settings, the majority of people using RAC services are not discharged back into community or home settings. Between 2017-2018, the proportion of 'exits' from Australian RACFs due to death was 83%, with an additional 10% of residents leaving to go to another RACF.[64] The type of care provided in RACFs is long-term, meaning that for many residents, the facilities serve as their home in their final years of life. In addition to assistance with daily tasks and clinical care, RACFs provide social care, emotional care, accommodation, domestic services (e.g., meals and laundry) and allied health services to residents.[65] The holistic and long-term nature of residents' care contributes additional dimensions to prioritisation, requiring decisions to be made about the importance of different aspects of care in consideration of the whole care experience.

While the complexity of residents' needs and their care can lead to a need to prioritise care, inadequate staffing levels and skill-mix can further exacerbate prioritisation dilemmas. RACFs have lower staff to patient/resident ratios compared to other health settings, particularly in terms of nursing staff, with less qualified Care Assistants (also known as care aides, personal care workers and carers) making up the majority of the workforce.[28,66] The Australian Nursing and Midwifery Federation's (ANMF) National Aged Care Survey 2019 – Final Report[66] and National Aged Care Staffing and Skills Mix Project Report 2016[28] indicate that there are inadequate staffing levels and an inappropriate skill-mix to meet residents' needs all of the time. These working conditions require care staff to attend to high workloads in time-pressured, resource-constrained environments, ultimately creating conflicting demands and prioritisation dilemmas.

1.6. Stakeholders' perspectives of prioritisation

The investigation of prioritisation in RACFs has been limited to studies of clinical staff members' perspectives. My integrative review, presented in Chapter 2, found that no previous study has assessed residents' and family members' perspectives on prioritisation or the broader research field of unfinished care. Although a distinction was made between preferences and priorities earlier in this chapter, in the absence of literature on prioritisation, studies of family members' and residents' preferences may provide insights into what consumers value in terms of residents' care.

1.6.1. Staff members' perspectives

A comprehensive literature review (presented in Chapter 2) showed that only two studies have explicitly explored prioritisation in RACFs.[56,58] Both Nortvedt[56] and Slettebø[58] interviewed clinicians and Registered Nurses as part of a larger research project exploring prioritisation in Norwegian nursing homes and public hospitals. Nortvedt et al.[56] explored clinicians' understanding of their professional role in clinical prioritisations when providing healthcare services for older individuals in both hospitals and nursing homes. They found that clinicians faced resource constraints and time pressures, leading to prioritisation dilemmas in which more urgent medical needs were prioritised over social and relational aspects of care. Physical training, rehabilitation, nutrition, clinical communication, psychosocial needs and care needs were viewed by some as 'peripheral tasks' outside the scope of physician and nurse responsibilities.

Slettebø et al.[58] investigated clinical prioritisation and contextual constraints in nursing homes. Similar to Nortvedt et al.,[56] the authors found that time pressures required physicians and nurses to prioritise medical needs over residents' psychosocial needs. Participants also described being put in positions in which they were required to prioritise between residents with equally important needs. Other contextual constraints included inadequate staffing; inadequate systems of collaboration within care teams, and between nursing homes and hospitals; lack of influence regarding nursing home admissions; inadequate leadership support; and inadequate infrastructure, for example, documentation systems. The authors also identified several influences on prioritisation decisions including the severity of patient illness, age of patient, type of need (e.g., medical versus psychosocial), and principles of justice and benevolence.

An additional article from this research group investigated clinical prioritisation considerations in relation to older persons' access to services and treatment.[57] While the focus of the study was outside the scope of this thesis, it provides further support for links between high workloads, inadequate time to provide care, staffing shortages and the need to prioritise care.[57]

1.6.2. Family members' perspectives

Family members play an important role in providing care to older adults including those in RACFs. This role is multi-faceted and involves advocating for residents, coordinating care, providing emotional and social support, and delivering personal care and basic medical care.[67-70] As previously mentioned, no previous studies of family caregivers' prioritisation have been undertaken. However, there is research on their preferences for care, particularly

how their preferences align with the preferences of the older person they care for, in their capacity as a proxy.[71-76] While there is evidence of alignment between the preferences of family and older relatives,[73] some studies indicate that there are also disparities between these preferences.[71,77] Evidence suggests that family members are more accurate in their reporting of some preferences compared to others,[71,77] and that they may underestimate the degree of importance of certain preferences, compared to their older relative.[71,72,75]

By way of example, Heid et al.[71] recruited 85 dyads of residents and family members to assess family proxies' understanding of residents' preferences for everyday living on 72 items across five domains of care using the Preferences for Everyday Living Inventory.[78] While 'perfect agreement' between the responses of proxies and residents was rare, there were only significant mean differences between preferences on 12 of the 72 items at the group-level. Eleven of these 12 items were ranked more important by residents compared to their proxies. At the dyad-level, there was a significant discrepancy between preferences for the domain of growth activities (e.g., hobbies, listening to music, taking care of plants), with residents placing more importance on these types of activities. Three domains—leisure and diversionary activities, self-dominion and social contact—showed no significant discrepancies between dyads' preferences, and one domain—enlisting others in care—was dropped from the analysis due to poor inter-rater reliability.

1.6.3. Residents' perspectives

Similar to studies involving family members, previous research has sought out older persons' (living in nursing homes and in the community) preferences for their care,[78-86] rather than their priorities. For example, Bangerter et al.[83] used the Preferences of Every-day Living Inventory for Nursing Home to assess the importance of various preferences for care amongst 337 nursing home residents in the United States. They found that overall, the most important preferences for residents were: choosing who is involved in care discussions, staff members showing that they care, and staff members showing respect. Heid et al.[84] found that residents' preferences for care were influenced by within-person factors (e.g., functional ability), the facility environment (e.g., schedules), the social environment (e.g., type of interactions), and the global environment (e.g., the weather). Furthermore, preferences were found to be flexible and susceptible to change, for example, in response to changes in functional ability.

1.7. Rationale for the research

Chapter 2 presents an integrative review identifying several gaps in the literature. First, the majority of research on unfinished care in RACFs has focused on the act of rationing care or

the outcome of missed care. While care prioritisation has been investigated in other healthcare settings, particularly hospitals,[16,25] there is a lack of research on prioritisation in RACFs settings.[32] In order to prevent missed care and subsequent adverse outcomes for residents, an understanding of how care is prioritised and what influences prioritisation decisions is needed.

Second, the literature on prioritisation in RACFs is limited to the perspectives of clinical staff members—Registered Nurses and Physicians. As outlined earlier in this chapter, the majority of the RAC workforce comprises non-clinical staff members, primarily Care Assistants. RACFs are made up of multidisciplinary workforces and therefore, studying only a clinical sub-set of staff members creates a biased representation of care prioritisation.

Third, the perspectives of consumers (residents and family members[b]) regarding care prioritisation remains unknown. In order to provide person-centred care that meets the individual needs of residents, an understanding of consumers' priorities is required. Providing insights into how residents and their families prioritise care and what influences their prioritisation decisions can facilitate care provision so that it aligns with what consumers consider to be most important for care.

1.8. Objectives and research questions

The overarching research objective was to investigate the prioritisation of care in RACFs from the perspectives of care providers and consumers. Three research questions (RQs) guided this research project:

RQ1: How is care prioritised by staff members?

RQ2: How is care prioritised by family members?

RQ3: How is care prioritised by residents?

1.9. Theoretical orientation of the thesis

This thesis is guided by complexity science, as well as theoretical frameworks of missed care and implicit rationing. By studying the prioritisation of care through a complexity lens, I recognise that the care provided in RAC—similar to all other healthcare systems—is non-linear, adaptive, dynamic, interactional and potentially unpredictable.[87,88] Complexity science

[b] While family members often provide care to residents, for the purpose of this thesis, 'care providers' refer to formal employees. Family members often interact with healthcare systems on behalf or residents and are therefore situated in this research as consumers.

moves beyond looking at the components of a system in isolation by studying diverse networks of agents (people, stakeholder groups, organisations) in an attempt to understand how they interact to make sense of their environment (sense-making).[88,89] My research aimed to identify shared meaning within complex networks by revealing collective viewpoints amongst participants on the topic of prioritisation. By studying different aspects of care in relation to all other aspects, my research acknowledges that care is not delivered as a set of discrete tasks; workflows are continuously being re-organised in reaction to events, other agents (e.g., residents, family members, team members, managers), and changes to the work environment.

This thesis is guided by two theoretical frameworks: Kalisch, Landstrom and Hinshaw's Missed Nursing Care Model[19] and Schubert et al.'s Conceptual Framework of Implicit Rationing of Nursing Care.[24] The Missed Nursing Care Model is a mid-range explanatory theory[24] which proposes a five-step linear process of missed care. *Antecedents* (e.g., demand for patient care and resource allocation) are theorised to precede *Nursing processes* (e.g., planning and evaluation) which in turn has an effect on *Nurses' internal processes* (e.g., prioritisation decision-making and habits). Prioritisation is conceptualised as leading to *Missed nursing care.* The final step in this process is the impact of missed care on *Patient outcomes*. The Conceptual Framework of Implicit Rationing of Nursing Care is a more complex and dynamic model, however, it shares key features with the Missed Nursing Care Model, including the effect of organisational factors, work environment and resources on priority-setting, and the stance that clinical decision-making is a precursor to rationing of care and consequently, nurse and patient outcomes.

1.10. Organisation of thesis

This thesis is organised into eight chapters. Table 1.2. presents an overview of each chapter in terms of its content, study objectives, research questions and participants. Each chapter commences with a running head to guide the reader through the thesis and situate the chapter in the context of the thesis as a whole. Chapter 1 introduces the thesis and research rationale. Chapters 2-7 comprise stand-alone articles numbered I-VI. The articles are either under review or published in peer-reviewed journals. Each of these chapters contains an introduction section linking it to the research question it addresses. Chapter 8 presents a discussion of the research in the context of the literature and outlines the unique contributions of the thesis. The chapter sets out ten recommendations for improving care provision in RACFs based on the research findings. Chapter references are presented at the end of this

thesis, followed by Appendices A-H. References, appendices and supplementary materials for each of the six journal articles (I-VI) are presented at the end of corresponding chapters. The following sections provide a more detailed summary of each chapter.

1.10.1. Chapter 1

Chapter 1, *Introduction,* provides background information on core elements of the thesis topic including the research field, focus and context, as well as key stakeholder perspectives. It presents a rationale for the research and then outlines the thesis objective, research questions and theoretical orientation. The chapter concludes with an outline of each chapter, ethics approvals and final remarks.

1.10.2. Chapter 2

Chapter 2, *Integrative review*, presents Article I. This review used a systematic approach to review the literature on unfinished care in RACFs. The article details the search strategy, data sources and review processes. It then presents findings from the analysis and synthesis of the following data items: terms and definitions, measurement tools and methods, types of unfinished care, factors associated with unfinished care, frequency of unfinished care, and the impact of unfinished care on various stakeholder outcomes. The findings of the research are framed as study implications for policy and practice in terms of funding of resources, staffing levels, and the sustainability of RACFs.

1.10.3. Chapter 3

Chapter 3, Study protocol, presents Article II. This protocol provides a brief overview of the research topic, rationale for the study and the study approach. It then introduces Q methodology and its theoretical underpinnings. The article describes the development of materials, recruitment strategies, data collection processes and analyses, then concludes with expected outcomes of the research.

1.10.4. Chapter 4

There are two complementary studies of staff members' prioritisation contained in the thesis (Chapter 4 and Chapter 5). Chapter 4, *Staff members' prioritisation of care,* presents Article III. The study explored staff members' priorities regarding the care provided to residents, as well as the ways in which they prioritised care. The article discusses the study findings in relation to the role division of labour in RACFs and residents' choices about their care.

1.10.5. Chapter 5

Chapter 5, *Influences on staff members' prioritisation decisions,* presents Article IV. This study investigated the context in which prioritisation occurs and the influences on staff

members' prioritisation decisions. The article outlines how the study findings have implications for population ageing, aged care workforces, person-centred care and residents' independence.

1.10.6. Chapter 6

Chapter 6, *Family members' prioritisation of care*, presents article V. In this study, family members' priorities, their prioritisation of care, and the influences on their prioritisation decision-making were investigated. The article comments on how the findings of the study provide insights into the role of family members in RAC, as well as individualised approaches to care.

1.10.7. Chapter 7

Chapter 7, *Residents' prioritisation of care,* presents article VI. The study explored residents' priorities, their prioritisation of care, and the influences on their prioritisation decisions. The article discusses the findings in relation to residents' independence, food and meals, and staffing shortages.

1.10.8. Chapter 8

Chapter 8, *Discussion*, ties the previous seven chapters together to form a cohesive piece of work. This discussion chapter outlines how the thesis objective was met and the research questions were answered. It demonstrates the unique contributions of the thesis to the field of research by summarising the research findings for each stakeholder group and then situating them in the context of existing literature. Building on the research findings, I devised ten recommendations for improving care provision in RACFs which are presented in this chapter. This is followed by specific contributions of the thesis to knowledge gaps, methodology, theory and practice. The chapter moves on to outline the strengths and limitations of the research project and implications for policymakers, care providers and consumers, and then concludes with final remarks.

Table 1.1. Overview of thesis

Thesis chapter	Content	Project research questions (RQs)	Study objective	Study research questions (SRQs)	Participants
Chapter 1	**Introduction**	-	-	-	-
Chapter 2	**Integrative review** Article I: Ludlow, K., Churruca, K., Mumford, V., Ellis, L.A., Testa, L., Long, J., Braithwaite, J. (2019) Unfinished care in residential aged care facilities: An integrative review. *The Gerontologist*, gnz145.	-	To investigate the current state of knowledge of unfinished care in RACFs and to identify knowledge gaps in the field	SRQ1: How is unfinished care defined in the literature? SRQ2: How is unfinished care measured or assessed? SRQ3: What aspects of care are missed, rationed, or assigned a lower priority? SRQ4: What factors are associated with unfinished care? SRQ5: How often is care missed or rationed? SRQ6: What is the impact of unfinished care on residents, staff members, and families?	-

Chapter 3	**Study protocol** Article II: Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2019) Understanding the priorities of residents, family members and care staff in residential aged care using Q methodology: A study protocol. *BMJ Open*, 9:e027479.	RQs 1-3	To investigate how care is prioritised by key stakeholders in RACFs and to make comparisons between the priorities of the different stakeholder groups	SRQ1: How do residents prioritise their care? SRQ2: How do residents' family members prioritise care? SRQ3: How do care staff prioritise the care provided to residents?[c]	-
Chapter 4	**Staff members' prioritisation of care** Article III: Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2020) Staff members' prioritisation of care in residential aged care facilities: A Q methodology study. *BMC Health Services Research*, 20:423.	RQ1	To investigate how care staff prioritise the care provided to residents living in RACFs	SRQ1: What are staff members' priorities regarding the care they provide to residents? SRQ2: How do staff members prioritise care?	31 staff members

[c] The study protocol presents a fourth research question that is outside the scope of this thesis. This is discussed further in Chapter 3.

Chapter 5	**Influences on staff members' prioritisation decisions** Article IV: Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (Under review) Influences on staff members' prioritisation decisions in residential aged care facilities: A qualitative study. Invited to revise and resubmit to *Qualitative Health Research.*	RQ1	To investigate staff members' prioritisation decision-making regarding the care provided in RACFs	SRQ1: In what contexts do prioritisation dilemmas arise in RACFs? SRQ2: What influences staff members' prioritisation decision-making?	32 staff members
Chapter 6	**Family members' prioritisation of care** Article V: Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2020) Family members' prioritisation of care in residential aged care facilities: A case for individualised care.	RQ2	To investigate family members' prioritisation of care in RACFs	SRQ1: What are family members' priorities regarding the care provided to their relative living in a RACF? SRQ2: How do family members of residents living in a RACF prioritise care? SRQ3: What influences family members' prioritisation decision-making?	27 family members

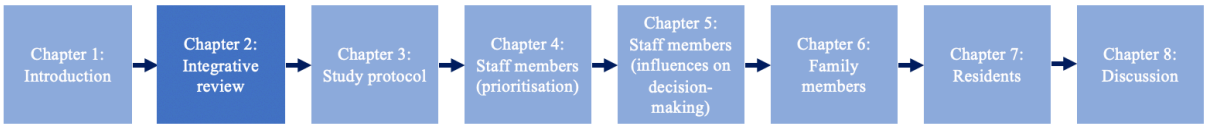
	Journal of Clinical Nursing, 29:3272–3285.				
Chapter 7	**Residents' prioritisation of care** Article VI: Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (Under review) Aged care residents' prioritisation of care: A mixed-methods study. Invited to revise and resubmit to *Health Expectations.*	RQ3	To investigate aged care residents' prioritisation of care	SRQ1: What are residents' priorities regarding their care? SRQ2: How do residents prioritise care? SRQ3: What influences residents' prioritisation decision-making?	38 residents
Chapter 8	**Discussion**	RQs1-3	-	-	-

1.11. Ethics approval

The research presented in this thesis was approved by Macquarie University Human Research Ethics Committee (Reference number: 3236) and the Human Research Ethics Committee of the participating organisation. See Appendix A for ethics approval correspondence.

1.12. Concluding remarks

Australia's aged care system is under increasing pressure to support some of the country's most vulnerable people. Evidence suggests that aged care services often fall short of providing care that is appropriate, high-quality and safe. This thesis presents a body of work looking at prioritisation of care in RACFs as part of the broader scope of unfinished care. It contributes to the limited knowledge on prioritisation by seeking out the perspectives of a variety of clinical and non-clinical staff members, family members and residents, many of whom have been neglected in prioritisation research to-date.



CHAPTER 2: INTEGRATIVE REVIEW

2.1. Overview of Chapter 2

Chapter 2 presents an integrative review of empirical studies of unfinished care in RAC settings. As discussed earlier in this thesis, this research field is somewhat disjointed with various terminology being inconsistently used by studies to describe a group of closely related concepts, ultimately referring to errors of omission or unfinished care. The purpose of this study was to collate, analyse and synthesis these studies to create a comprehensive and cohesive account of unfinished care. The review also aimed to identify gaps in the literature in order to guide the research project.

This chapter contains Article I:

Ludlow, K., Churruca, K., Mumford, V., Ellis, L.A., Testa, L., Long, J., Braithwaite, J. (2019) Unfinished care in residential aged care facilities: An integrative review. *The Gerontologist*, gnz145. doi: 10.1093/geront/gnz145.

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OXFORD

Review Article

Unfinished Care in Residential Aged Care Facilities: An Integrative Review

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Abstract

Background and Objectives: When workload demands are greater than available time and resources, staff members must prioritize care by degree of importance and urgency. Care tasks assigned a lower priority may be missed, rationed, or delayed; collectively referred to as "unfinished care." Residential aged care facilities (RACFs) are susceptible to unfinished care due to consumers' complex needs, workforce composition, and constraints placed on resource availability. The objectives of this integrative review were to investigate the current state of knowledge of unfinished care in RACFs and to identify knowledge gaps.

Research Design and Methods: We conducted a search of academic databases and included English-language, peer-reviewed, empirical journal articles that discussed unfinished care in RACFs. Data were synthesized using mind mapping techniques and frequency counts, resulting in two categorization frameworks.

Results: We identified 17 core studies and 27 informing studies (n = 44). Across core studies, 32 types of unfinished care were organized under five categories: personal care, mobility, person-centeredness, medical and health care, and general care processes. We classified 50 factors associated with unfinished care under seven categories: staff member characteristics, staff member well-being, resident characteristics, interactions, resources, the work environment, and delivery of care activities.

Discussion and Implications: This review signifies that unfinished care in RACFs is a diverse concept in terms of types of unfinished care, associated factors, and terminology. Our findings suggest that policymakers and providers could reduce unfinished care by focusing on modifiable factors such as staffing levels. Four key knowledge gaps were identified to direct future research.

Keywords: Analysis—systematic review, Decision making, Institutional care/residential care, Nursing homes, Workforce issues, Long-term care, Missed care, Prioritization

Ludlow, K., Churruca, K., Mumford, V., Ellis, L.A., Testa, L., Long, J., Braithwaite, J. (2019) Unfinished care in residential aged care facilities: An integrative review. The Gerontologist, gnz145, by permission of Oxford University Press.

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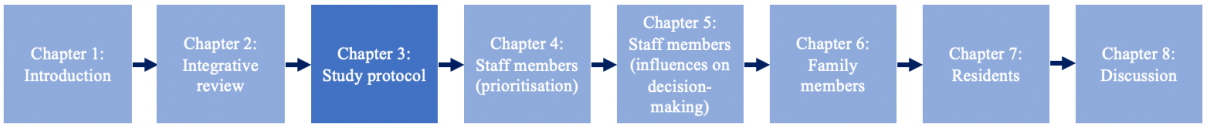

CHAPTER 3: STUDY PROTOCOL

3.1. Overview of Chapter 3

Chapter 2 identified several knowledge gaps in the literature. This thesis addresses three of these gaps, namely: (a) There is a lack of focused research on the prioritisation of care in RAC settings, (b) Studies of unfinished care in RACFs are dominated by the viewpoints of Registered Nurses and Care Assistants. Additionally, studies of prioritisation have only elicited clinical staff members' perspectives and have not accounted for the multidisciplinary nature of RAC workforces, and (c) There is a lack of representation of consumer stakeholders, specifically, family members and residents, in studies of unfinished care in RAC settings.

Chapter 3 presents a study protocol addressing these three knowledge gaps. Specifically, the research project outlined in this protocol aimed to investigate the prioritisation of care in RACFs from the perspectives of care providers and consumers. The protocol presents the following research questions:

RQ1: How is care prioritised by staff members?

RQ2: How is care prioritised by family members?

RQ3: How is care prioritised by residents?

The study protocol forms the methods section of this thesis. It describes the study design, methods, materials, recruitment strategies, data collection processes and analyses. The protocol also summarises some of the key theoretical underpinnings of Q methodology. While the published protocol provides a general overview of the development of the Q sort deck used in this research, a more detailed account is presented in Table 3.1.1. The Q sort deck for each participant group, post-sorting interview guide, semi-structured interview guides, and the demographic questionnaire are presented in Appendices E, F, G and H, respectively.

Table 3.1.1. Development of the Q sort deck

Component	Method
The concourse (A comprehensive collection of socio-culturally embedded	A list of care elements was devised by a review of journal articles, reports and government/stakeholder websites on the following topics in residential aged care: Unfinished care, unmet needs, person-centred care,

statements [or images, sounds, smells, text] capturing the breadth and depth of a topic of interest).	nursing, care safety and quality, culture change, quality of life, and residents' preferences for care. The list was developed until no new care elements presented in the literature. Australia's previous Accreditation Standards were also reviewed[b].[90]
The Q set (A reduced subset of items derived from the concourse, to be rank-ordered by participants).	The concourse was reduced to 34 items though a multi-stage process. Items representing the same concept were grouped together, for example, "teeth cleaning" and "teeth brushing". Similar concepts were then grouped using an interactive mind mapping activity in which each item was printed and placed on a table so that they could be physically manipulated. Similar items were grouped together, for example, "teeth cleaning" and "oral care". This step was repeated multiple times until an appropriate Q set size was reached, considering the need to reduce cognitive burden on resident participants. This activity was completed with two members of the supervisory team who have expertise in Q methodology, healthcare delivery, nursing, and aged care.
Statements, images, and examples	*Statements:* Simple and clear statements were devised for each Q set item. The statements were modified for the three groups, for example, *My medical conditions are managed* (resident); *My family member's medical conditions are managed* (family); and *Residents' medical conditions are managed* (care staff). *Images:* multiple visual representations were sought for each Q set item from Noun Project, an icon repository. *Examples:* examples and/or descriptions of care activities were taken from the larger concourse to be used as prompts. The statements and examples were revised and modified by the supervisory team, who also assisted with the finalisation of the image selection.
Feedback	The draft Q set was presented to a facility manager, care manager and nursing manager from one of the participating facilities during a face-to-face meeting.

[b] Updated to the new Aged Care Quality Standards (2019) after the Q sort deck was designed

	Feedback was sought on the comprehensiveness of the Q set, the phrasing of the statements, and terminology use. The managerial team had one week to provide their feedback after the meeting. A convenience sample of three family members pilot tested the card sorting activity which helped to further refine the Q set.
Q sort deck (The presentation of the Q set on a deck of cards)	The Q set was transformed onto a physical set of cards. The front of each card displayed a statement and image. The back of each card listed relevant examples. A magnet was inserted into the middle of each card so that it could be placed on the Q sort grid (displayed on a whiteboard). The cards were covered in laminate to avoid participant skin cuts and so that they could be easily cleaned before use with the next participant.

3.2. Deviations from the study protocol

This section outlines several elements of the thesis that deviate from the original protocol (Article II). The thesis answers three of the four research questions presented in the protocol. The fourth research question was: *What are the differences and similarities between the priorities of the three stakeholder groups?* A comparative study falls outside the scope of this thesis and will be conducted as part of a suite of planned post-doctoral work. Analyses and findings relevant to the comparison of stakeholder views are therefore not presented in this thesis. This includes second-order Q factor analysis, and the use of the Framework Method[91,92] which involves the development of an analytic matrix to compare qualitative data between different groups of interest. Instead, separate qualitative analyses of each stakeholder group's priorities was guided by Elo and Kyngäs[93] and first-order Q factor analyses were conducted.

The order of the research questions presenting in the protocol below was changed for the purpose of this thesis. Specifically, staff members prioritisation is addressed first in this thesis in order to build upon previous studies of prioritisation which have focused on staff members' perspectives.

While the protocol provides a guide for semi-structured interviews, the questions were developed further between the publication of the protocol and data collection. The finalised interview guide is presented in Article III (Chapter 4) and Appendix G.

Another deviation from the protocol concerns adherence to the P set limit. The *P set* refers to the number of study participants in Q studies. Q methodology guidelines[94] suggest that the P

set should be lower than the number of data items (cards). In the case of this research, the number of cards was 34 and therefore the P set limit was 33. The P set limit was used as a guideline only, with previous research demonstrating that Q studies can be successfully conducted with P sets higher than the number of data items to produce meaningful results.[95-97] While the studies of staff members (n=31 and n=32) and family members (n=27) adhered to this guideline, resident participants (n=38) were recruited past the P set limit outlined in the study protocol. Participants were recruited until saturation of data was reached. In order to adequately capture the perspectives of residents with different medical conditions, dependencies, needs and capabilities, the data saturation point was higher in the resident study compared to the staff members and family members studies.

This chapter contains Article II:

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2019) Understanding the priorities of residents, family members and care staff in residential aged care using Q methodology: A study protocol. *BMJ Open*, 9:e027479. doi: 10.1136/bmjopen-2018-027479.

BMJ Open

Understanding the priorities of residents, family members and care staff in residential aged care using Q methodology: a study protocol

Kristiana Ludlow, Kate Churruca, Louise A Ellis, Virginia Mumford, Jeffrey Braithwaite

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ABSTRACT

Introduction Residential aged care facilities (RACFs) are under increasing pressure to provide high-quality, round the clock care to consumers. However, they are often understaffed and without adequate skill mix and resources. As a result, staff must prioritise care by level of importance, potentially leading to care that is missed, delayed or omitted. To date, the literature on prioritisation and missed care has been dominated by studies involving nursing staff, thereby failing to take into account the complex networks of diverse stakeholders that RACFs comprise. This study aims to investigate the priorities of residents, family members and care staff in order to make comparisons between how care is prioritised in RACFs by the different stakeholder groups.

Methods and analysis This study comprises a Q sorting activity using Q methodology, a think-aloud task, a demographics questionnaire and semi-structured interview questions. The study will be conducted in five RACFs across NSW and QLD, Australia. Using purposive sampling, the project will recruit up to 33 participants from each of the three participant groups. Data from the Q sorting activity will be analysed using the analytic software PQMethod to identify common factors (shared viewpoints). Data from the think-aloud task and semi-structured interviews questions will be thematically analysed using the Framework Method and NVivo qualitative data analysis software.

Ethics and dissemination The study has been approved by St Vincent's Health and Aged Care Human Research and Ethics Committee and Macquarie University Human Research Ethics Committee. It is expected that findings from the study will be disseminated: in peer-reviewed journals; as an executive report to participating facilities and a summary sheet to participants; as a thesis to fulfill the requirements of a Doctor of Philosophy; and presented at conferences and seminars.

Strengths and limitations of this study

- This study presents a novel approach to understanding prioritisation in residential aged care by comparing the priorities of residents, family members and care staff, in a research area primarily dominated by the study of clinical staff.
- A tailored Q methodology approach will enable residents who are often excluded from research to participate in this study, including residents with vision impairment, hearing loss, or mild cognitive impairment.
- Residents with moderate to severe cognitive impairment are excluded from participating in the study; however, family members and staff members who care for residents with cognitive decline will be invited to participate.
- Additional research is recommended to explore the priorities of other stakeholder groups not involved in this study, for example, visiting physicians, allied health professional or volunteers.
- It is expected that study findings can be used to guide improvement strategies at the organisation level and policy level to deliver care that is consumer-centred while taking into consideration the priorities and role challenges of key stakeholders.

INTRODUCTION

Background

One of the biggest challenges healthcare systems face globally is how to meet the care needs of ageing populations.[1 2] Individuals over the age of 65 currently make up 8.7% of the world's total population, with some countries having up to three times this number (Japan, 27%; Germany, 21%; Australia, 16%; USA 15%).[3] This age group is expected to almost double by 2050,[4] and triple for those aged >80.[5] As population growth and life expectancy continue to increase, health systems are faced with the challenge of providing sustainable services to older consumers that are safe, high quality, holistic, consumer-centred and affordable for consumers, institutions and funders.

Residential aged care

Accompanying the demographic shift towards older populations, there is a projected

increase in the prevalence of dementia and multimorbidity.[6 7] This means that not only are people living longer, but they are also living with more complex physical and cognitive needs, as well as a greater dependency on others to provide assistance with basic needs (eg, showering, mobility or eating). Dependent older individuals may require full-time care that their family members are not always able to provide.[8] This places particularly high demands on residential care services in terms of funding, physical resources (eg, beds and equipment) and human resources, including workforce and training.

Unlike other healthcare systems, such as acute or primary care, residential aged care facilities (RACFs) serve as a home for consumers,[9 10] providing social care, spiritual care, meaningful activities and physical assistance, in addition to medical care.[11] RACFs must deliver round the clock care in which care staff are available to meet residents' varied needs, as well as managing interruptions to routine care, such as unexpected illness or injury.

Prioritising care

Despite being high-dependency environments, RACFs often lack adequate human resources in terms of both staffing levels and skill mix.[12 13] These shortages and consequent time constraints mean that staff must continually prioritise and re-prioritise the care they provide by adapting to the situation at hand. Prioritisation can be understood as 'putting first', implying that something that is important or urgent has priority over what is less important or less urgent'.[14] Priority-setting, or prioritisation of care, requires care staff to rank care activities in a hierarchical fashion according to the level of importance, where some tasks are assigned a lower priority. The action by which a lower priority care task is decisively traded off in favour of a higher priority task is known as 'implicit rationing'.[15]

Prioritisation of tasks can result in 'missed care',[13] which is 'any aspect of required patient care that is omitted (either in part or in whole) or delayed'.[16] Essentially, it is care that has fallen through the cracks in a complex—often, pressurised—system. Across acute and residential care settings, missed care is associated with poorer consumer outcomes, such as urinary tract infections, patient falls, pressure ulcers, and reduced patient satisfaction and quality of care.[17]

The priorities of key stakeholders in RACFs

Research on prioritisation and missed care predominantly focuses on the priorities of healthcare professionals, particularly nursing staff.[17–19] This narrow focus limits our understanding of prioritisation by emphasising a single viewpoint instead of acknowledging healthcare systems as complex networks made up of diverse stakeholders. In RACFs, these networks comprise residents, family members, direct care staff (eg, carers, registered nurses and management), domestic staff (eg, cleaners), allied health professionals (eg, speech pathologists and physiotherapists), visiting healthcare professionals (eg, physicians and dentists), volunteers, advocate groups and policy-makers.

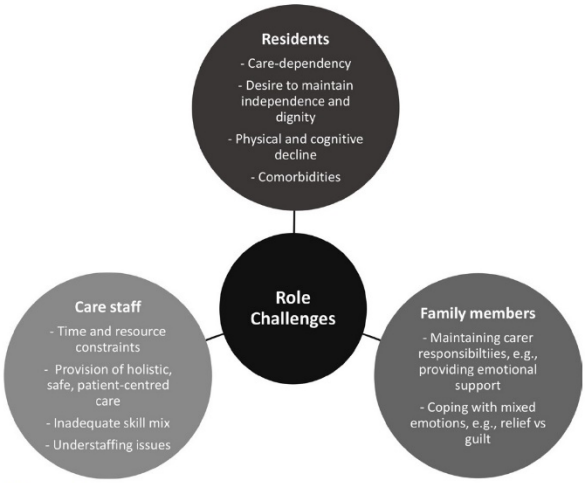

Figure 1 A selection of stakeholders' role challenges.

Each stakeholder holds a distinct role, accompanied by different responsibilities and challenges, which can influence their priorities, that is, what is *most important* to them when it comes to care. For this proposed study, we focus on three central stakeholder groups: residents, family members and care staff. Figure 1 presents a selected summary of role challenges these stakeholders face, based on the literature.[12 20–24]

Rationale

The research team systematically reviewed the literature using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework[25] to ascertain the current state of knowledge on 'unfinished care'—a collective term encompassing prioritisation, rationing, missed care, omitted care and care left undone.[18] The majority of included studies examined the scope of the problem (eg, what care is missed, delayed or left undone) and antecedents (eg, what factors contribute to unfinished care, such as inadequate staffing or time constraints).[13 26–28] Few studies directly assessed prioritisation,[29–31] demonstrating that there is limited knowledge about how care is prioritised in RACFs, particularly within the recent literature.

To deliver care that is more consumer-centred and takes the needs, as well as role challenges, of different stakeholders into consideration, it is important to obtain a deeper understanding of each groups' care priorities; what they value as most important in terms of care delivery. To the best of our knowledge, no other study has made comparisons between how care is prioritised by key stakeholder groups in residential aged care. The following objective and research questions were developed to address this gap.

Objective

To investigate how care is prioritised by key stakeholders in RACFs and to make comparisons between the priorities of the different stakeholder groups.

Research questions

1. How do residents prioritise their care?
2. How do residents' family members prioritise care?
3. How do care staff prioritise the care provided to residents?
4. What are the differences and similarities between the priorities of the three stakeholder groups?

Theoretical considerations

The ways in which stakeholders prioritise care will be investigated through Q methodology. Q is a research method used to systematically study subjectivity and identify divergent viewpoints (factors), through the integration of quantitative and qualitative techniques.[32 33] While the Q approach is a *method* of doing research, in our work, we also draw on its *theoretical* underpinnings. In doing so, we make a number of assumptions. First, we assume that individuals are able to express their subjective views on what they value most (their priorities). Second, this subjectivity can be systematically collected and studied through Q methodology.[33 34] Third, the number of distinctive viewpoints on a topic of interest is limited, known in the terminology of Q as 'finite diversity'.[35] Here, we assume that based on our use of Q, individuals' priorities can be examined to identify distinct, cohesive viewpoints shared by a number of participants.

In exploring the priorities of different stakeholders and making comparisons between them, we are also adopting a complexity lens.[36] Through this lens, we view RACFs as complex systems, comprising diverse agents who interact and sense-make (interpret the world) in ways that create shared meanings.[37–39] For this study, the portions of shared meaning under investigation are stakeholders' priorities. In a complex system, these collective interpretations are considered the basis for agents' interactions, which may, in turn, produce broader system-level behaviours,[37 40] for example, staff members may adapt to environmental constraints such as inadequate time or staff shortages by delaying or omitting aspects of care that are given lower priority.

While these broad theoretical and methodological principles guided our choice of method, we have avoided, at this stage, selecting a mid-range theory related to prioritisation, decision-making or care delivery in aged care. Q methodology is particularly suited to exploratory research, and it is then a convention to return to established theory to interpret results[35]; this will be the case for the proposed study, to understand the types of priorities participants have.

METHODS AND ANALYSIS

Study design

To answer the research questions, individual interviews will be carried out consisting of a Q sorting activity using Q methodology,[32] a think-aloud task,[41 42] a demographics questionnaire and semi-structured interview questions.[43] The Q sorting activity will require participants to make prioritisation decisions by ordering aspects of care by degree of importance. This activity will allow for comparison of patients' sorting patterns, resulting in the identification of salient viewpoints, that is, holistic expressions of what matters most to participants in terms of the care provided in RACFs. Q methodology is a method that has been successfully used in studies of care staff, residents, residents' family members, and individuals with early stages of dementia,[44–46] as well as in studies on prioritisation and priority setting.[47 48]

The Q sorting activity will be complemented by a concurrent think-aloud task and post-sort questions in order to provide insight into participants' thought processes and decision-making, for example, how they make prioritisation decisions and why certain aspects of care are viewed as more or less important than other aspects of care. Semi-structured interviews will provide a deeper understanding of prioritisation, for example, how participants perceive the priorities of other stakeholders, how care staff prioritise care during unexpected events or interruptions to care, and participants' experiences of unmet priorities.

Sample and setting

The research will be conducted in five RACFs across NSW and QLD, Australia. Purposive sampling in Q methodology allows for the capture of a diverse range of viewpoints on an issue that is relevant to participants[48 49] and will be used to recruit participants from three groups: residents, family members and care staff.

Q methodology is concerned with identifying and understanding salient viewpoints on an issue, rather than generalising about the distribution of those viewpoints in the wider population.[50] Therefore, unlike conventional survey techniques, large numbers of participants are not required nor recommended for Q methodology.[51] As a method, it privileges deep rather than broad data capture. Watts and Stenner suggest as a guideline that the number of participants (P set) should be less than the number of data items—referring to aspects of care in the proposed study.[32] Participants will be recruited until data saturation is achieved, that is, when no new information is presenting[52] or when the P set limit (n=33) for each group is reached.

Inclusion criteria

In order to participate in the study, participants must meet the following inclusion criteria: (1) be a current resident, family member of a resident or a staff member at a RACF; (2) have willingness and ability to provide informed consent; and (3) have the capacity to participate in an English-language interview. Additionally, resident participants can only be included in the study if their participation will not cause them any additional physical burden. Residents with mild cognitive impairment may participate

in the study if they are able to give informed consent, as advised by facility management.

Recruitment procedures

Recruitment strategies for interviews were developed through discussions with managers of participating RACFs. Managers will identify residents, family members and care staff who meet the inclusion criteria. Potential enrollees will then be invited to participate in the study via invitation letters and Participant Information and Consent Forms (PICFs). Advertisement posters for family members will also be placed at the front desks of facilities, on notice boards and in activity rooms. The study commenced in August 2018 with an expected completion date of May 2020.

Consent

Consent will be obtained from all participants in written form or verbally if participants are unable to provide written consent. Due to the potential inclusion of residents with mild cognitive impairment, the proposed study will employ an ongoing consent process (process consent), in which consent is verbally re-confirmed throughout the study.[53] Participants will be informed both verbally and within the PICFs that there is no obligation to participate in the study and that they can withdraw from the study at any time without consequence. If participants decide to withdraw during the study, they will be asked to sign a Withdrawal of Participation Form and no further personal information will be collected.

Materials

Demographics questionnaire

The demographics questionnaire has been designed to cover the following topics: age; gender; how long the participant has lived, worked or has had a family member living at the participating RACF; a self-reported single-item measure of health (residents); job title (care staff).

Q sort deck

The Q sorting activity will require participants to order aspects of care by level of importance using a set of cards (Q sort deck), each displaying three elements: a statement about an aspect of care; a visual representation of the corresponding statement and examples of the care element (figure 2). The Q sort deck was developed through a five-stage process:

Stage 1: a comprehensive list of elements of care in RACFs, known as 'the concourse' was devised through a review of the literature.[33]

Stage 2: concept mind mapping[54] was used to reduce the concourse to a subsample of items known as the Q set.[55] A smaller Q set (n=34) will be used in this study in order to reduce the cognitive demand placed on resident participants, while adequately covering the range of care provided in RACFs.

Stage 3: Q set items were modified into statements suitable for ranking by each participant group, for example, *My medical conditions are managed* (resident statement); *My family member's medical conditions are managed* (family statement); and *Residents' medical conditions are managed* (care staff statement).

Stage 4: the Q set was validated by three members of the managerial team from one of the participating sites to ensure that key aspects of care had been covered and that the language was appropriate and relevant for participants.

Stage 5: the Q set was transformed into a physical Q sort deck comprising a set of magnetic cards.

Q sort diagram

Cards will be sorted using a pre-established grid (Q sort diagram), which comprises a quasi-normal forced distribution with a rating scale from −4 (Least Important) to +4 (Most Important) (see figure 3). The Q sorting activity will be conducted on a whiteboard with the Q sort diagram transposed on, allowing for easy attachment of magnetised cards.

Semi-structured interview questions

Semi-structured interviews will be tailored to each participant group and will address the following questions:

- What influences participants' priorities?
- How are participants' priorities communicated?
- How do priorities compare between different participant groups (eg, how do residents' priorities compare with the priorities of care staff)?
- What happens when priorities are not met?
- How do care staff manage their priorities when delivering care?

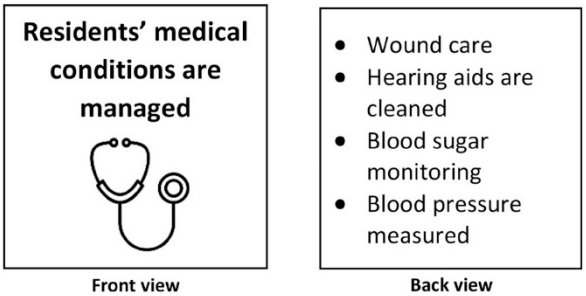

Figure 2 Example card: management of medical condition(s).

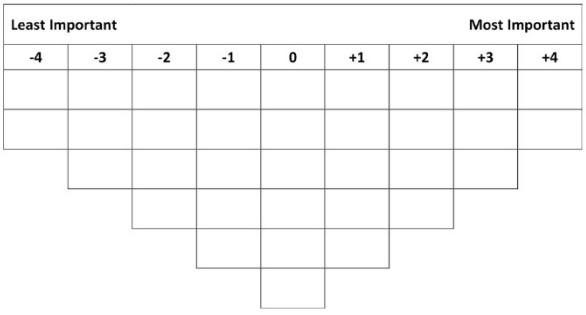

Figure 3 Q sort diagram.

- What challenges prevent care staff from meeting their priorities when delivering care?
- Is there any further information about priorities that participants want to discuss?

Data collection

Q sorting activity and think-aloud task

Participants will be guided through the Q sorting activity using established Q methodology techniques.[56] This will involve sorting the Q sort deck onto the Q sort diagram using the following condition of instruction: order the cards from 'least important' to 'most important' in terms of the care provided to you (residents); your family member (family members); or residents (care staff).

Concurrent to the Q sorting activity, participants will be asked to engage in a think-aloud task,[41 42] where they will be prompted by a member of the researcher team to vocalise their thoughts as they sort the cards.[56] The think-aloud task was piloted with an initial group of participants who found value in the opportunity to vocalise and explain their decisions. This task is a personalised one in which participants can engage to the degree to which they are willing and able. On completion of the Q sorting activity, participants will be asked a series of open-ended questions about the way they sorted the cards (Q sorting). Post-Q sorting interviews will assist in the interpretation of individual Q sorts as well as the interpretation of shared viewpoints across participants.[51] Questions will focus on the placement of salient cards and the decision-making process, and will build on responses from the think-aloud task.

Demographics questionnaire and semi-structured interview questions

Following the Q sorting activity, participants will be administered the demographics questionnaire. They will be given the option to complete the semi-structured interviews immediately after the demographics questionnaire or at another time if they prefer. The Q sorting activity, think-aloud task, demographics questionnaire and semi-structured interviews will be audio-recorded with participants' consent. A member of the research team will take field notes during interviews noting the context, participant mood, non-verbal behaviours, pace of decision-making and any interruptions to data collection. The audio recordings and field notes will ensure that participants' responses are accurately captured.

Alternative administration

Participants unable to attend on-site data collection will be offered an alternative method of study administration in which the demographics questionnaire and Q sorting activity are administered via VQMethod, an online tool that mirrors physical card sorting.[57] The semi-structured interview section of the study will be offered via telephone.

Patient and public involvement

The study design and methods were formulated based on experience with resident participants from a previous study on person-centred care, conducted at one of the participating sites. The Q sort deck was validated by three members of the management team at one of the participating facilities in order to ensure that the cards were appropriate for residents, family and staff members and that the cards adequately covered the care provided by the organisation. The study was piloted by a convenience sample of family members who currently have, or previously had, a relative living in a RACF to provide feedback on the card images and terminology, the card sorting processes and the abilities of residents to perform the study tasks.

Analysis

NVivo qualitative data analysis software V.12[58] will be used to organise data and assist data analysis. Data from the think-aloud task and semi-structured interviews will be transcribed verbatim and thematically analysed using the Framework Method.[59 60]

Data from the Q sorting activity will be analysed using established procedures within Q methodology, which are based on inverted factor analysis techniques.[61] The analysis aims to identify similar patterns in how participants have sorted the cards (ie, have prioritised care). Q sorts (individuals' card sequences) will be analysed separately for each of the three participant groups in order to identify similar viewpoints within each group.[62] PQMethod, a statistical software designed for Q methodology studies,[63] will be used to identify highly correlated Q sorts, known as 'factors',[62 64] and 'factor arrays', which represent a single Q sort characterising a 'best-estimate' of a factor.[64] Factor arrays will be used in the interpretation process to produce meaningful narratives of different viewpoints on care priorities for each of the identified factors.[65] A second-order factor analysis will then be performed in which the factor arrays from each of the three analyses will be entered into PQMethod as new Q sorts.[66] This process will enable a comparison between the priorities of residents, family members and care staff.

EXPECTED OUTCOMES AND SIGNIFICANCE

Prioritisation of care tasks can lead to care that is missed, omitted or delayed,[16 18] and subsequently, adverse consequences for care consumers. For example, if regular repositioning or 'turning' is assigned a lower priority and is left undone, pressure ulcers may form, potentially resulting in infection and hospitalisation.[17 67] Furthermore, if the priorities of care staff do not align with the priorities of residents and family members, then this may mean that what is valued most by residents and families is being overlooked.

Although we have some knowledge about what care is most often missed and what factors are associated with missed care,[13 26 28] less is known about *how* care is prioritised and what influences prioritisation decisions. This is especially true for RACFs, where unfinished care (prioritisation, rationing and missed care) is a research area that

is fairly new and has been dominated by the experiences and perspectives of nursing staff.[17–19]

The proposed research aims to explore the phenomenon from different vantage points, providing a novel approach to the study of prioritisation. To the best of our knowledge, this will be the first study to compare how care is prioritised by key stakeholders (residents, family members and care staff) in RACFs. We expect this research to have valuable outcomes at the individual, organisation and system levels.

Individual participants

Although there are no guaranteed benefits to participating in the study, we anticipate that participants will find value in having the opportunity to express their opinions and reflect on their priorities. This study will also allow them insight into the priorities of other stakeholder groups, which may be information not otherwise easily accessed.

Participating facilities

By identifying shared priorities, as well as any discrepancies between the priorities of the three stakeholder groups, this research will highlight areas of care that are a high priority across the board, as well as signifying aspects of care that could be improved. This information can be used by facilities to guide their efforts of providing care which is in line with the priorities of different stakeholders.

Although missed care is not the direct focus of this study, it is a concept closely associated with prioritisation, and it is expected that this study will reveal information about unmet priorities, incidences of missed care and some of the challenges care staff experience when delivering care. This information may be used by RACFs to develop strategies aimed at reducing rates of missed care.

Residential aged care policy

The findings from this study may inform aged care policy about what key stakeholder groups value most in terms of care provision. This information is relevant to the aims of current healthcare reforms in which policy-makers are attempting to move away from traditional, medically focused models to more holistic and consumer-centred ones.[68 69]

ETHICS AND DISSEMINATION

This research project has been developed in accordance with the National Health and Medical Research Council (NHMRC) National Statement on Ethical Conduct in Research[70] and is approved by St Vincent's Health and Aged Care Human Research and Ethics Committee and Macquarie University Human Research Ethics Committee.

All data records will be de-identified using participant identification numbers. All digital copies of study materials, interview transcripts, field notes and audio recordings will be securely stored in electronic format on a password-protected database at Macquarie University. Data will be stored for 5 years after the date of any publication resulting from this project, when it will then be disposed of in accordance with the requirements of the Macquarie University Code for the Responsible Conduct of Research.

De-identified research findings will be presented as an executive report to participating facilities and as summary sheets to participants. The research will be published as a thesis to fulfil the requirements of a Doctor of Philosophy. It is also intended that this research will be published in peer-reviewed journals and presented at national and international conferences and seminars. Any publication resulting from the findings will be de-identified to protect the privacy of participants.

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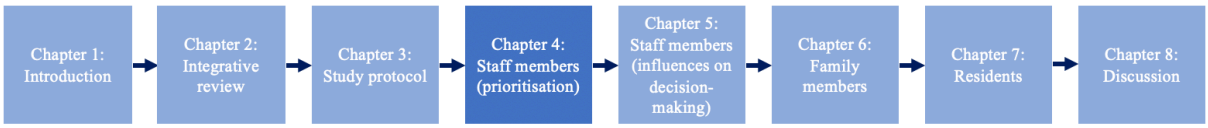

CHAPTER 4: STAFF MEMBERS' PRIORITISATION OF CARE

4.1. Overview of Chapter 4

This chapter addresses RQ1: *How is care prioritised by staff members?* There are a limited number of studies on staff members' prioritisation of care in RAC settings, with existing research focusing on clinical staff members' views only.[56,58] This chapter comprises a study that explored staff members' priorities and their prioritisation of residents' care. The study investigated prioritisation from the views of clinical and non-clinical staff members, specifically, Registered Nurses, Managers, Care Assistants, Pastoral Carers and Lifestyle and Activities Officers. This chapter is the first of two chapters in this thesis that focus on prioritisation from the perspectives of staff members.

As part of the analysis in this study, a care categorisation system was devised and subsequently used in Chapters 6 and 7. The categorisation system was developed to help interpret viewpoints resulting from Q factor analyses. To develop the categorisation system, related aspects of care (represented as cards) were grouped based on a review of Australia's previous Accreditation Standards,[90] aged care literature, definitions of holistic care and discussions with the supervisory team. Table 4.1.1. provides a definition for each of the five care categories.

Table 4.1.1. Care categorisation system

Care category	Definition	Card examples
Clinical care	Care addressing residents' medical needs	Medication management; Resident decision-making
Activities of daily living	Assistance with residents' routine personal care	Skin care; Toileting
Respect	The treatment of residents in ways that value them	Respect; Privacy
Psychosocial care	Social, psychological and emotional aspects of care	Emotional Support; Conversations
Independence and choice	A relative concept referring to residents' ability to do things for themselves and	Independence; Choice about meals

	make decisions about non-clinical aspects of care (clinical decision-making is covered under 'Resident decision-making')

This chapter contains Article III:

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Ludlow et al. BMC Health Services Research (2020) 20:423
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BMC Health Services Research

RESEARCH ARTICLE Open Access

Staff members' prioritisation of care in residential aged care facilities: a Q methodology study

Kristiana Ludlow*, Kate Churruca, Virginia Mumford, Louise A. Ellis and Jeffrey Braithwaite

Abstract

Background: When healthcare professionals' workloads are greater than available resources, care activities can be missed, omitted or delayed, potentially leading to adverse patient outcomes. Prioritisation, a precursor to missed care, involves decision-making about the order of care task completion based on perceived importance or urgency. Research on prioritisation and missed care has predominantly focused on acute care settings, which differ from residential aged care facilities in terms of funding, structure, staffing levels, skill mix, and approaches to care. The objective of this study was to investigate how care staff prioritise the care provided to residents living in residential aged care.

Methods: Thirty-one staff members from five Australian residential aged care facilities engaged in a Q sorting activity by ranking 34 cards representing different care activities on a pre-defined grid from 'Least important' (− 4) to 'Most important' (+ 4). Concurrently, they participated in a think-aloud task, verbalising their decision-making processes. Following sorting, participants completed post-sorting interviews, a demographics questionnaire and semi-structured interviews. Q sort data were analysed using centroid factor analysis and varimax rotation in PQMethod. Factor arrays and data from the think-aloud task, field notes and interviews facilitated interpretation of the resulting factors.

Results: A four-factor solution, representing 22 participants and 62% of study variance, satisfied the selection criteria. The four distinct viewpoints represented by the solution were: 1. Prioritisation of clinical care, 2. Prioritisation of activities of daily living, 3. Humanistic approach to the prioritisation of care, and 4. Holistic approach to the prioritisation of care. Participants' prioritisation decisions were largely influenced by their occupations and perceived role responsibilities. Across the four viewpoints, residents having choices about their care ranked as a lower priority.

Conclusions: This study has implications for missed care, as it demonstrates how care tasks deemed outside the scope of staff members' defined roles are often considered a lower priority. Our research also shows that, despite policy regulations mandating person-centred care and the respect of residents' preferences, staff members in residential aged care facilities tend to prioritise more task-oriented aspects of care over person-centredness.

Keywords: Aged care, Assisted living facilities, Health workforce, Implicit rationing, Missed care, Nursing homes, Prioritisation, Q methodology, Residential facilities

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Background

Healthcare systems are complex, under-resourced and often pressurised environments. Within these systems, clinical and support staff are responsible for providing care to multiple patients with different health conditions and needs, often simultaneously, while completing a variety of associated administrative and care duties within a specified timeframe. High workloads and competing demands can lead to 'missed care' (care that is omitted or delayed) [1] as a result of 'rationing'. Rationing of care, or 'implicit rationing' involves "withholding of or failure to carry out necessary nursing measures for patients due to a lack of nursing resources such as staffing, skill mix or time" [2] (p. 228). There is evidence that missed care and implicit rationing are positively associated with medication errors, nosocomial infections, hospital readmissions, urinary tract infections, pressure ulcers, patient falls with injury, mortality, and critical incidences, and negatively associated with quality of care and patient satisfaction [3–5].

Researchers conceptualise rationed or missed care as a potential consequence of staff members' 'prioritisation' decisions [1, 2]. Prioritisation involves temporally ordering care tasks or problems according to perceived importance or urgency [6]. It is a necessary process that enables staff members to adapt to dynamic and unpredictable situations. In order to manage their workloads, staff members must make judgements about what residents or care tasks should be attended to first and which care activities can be delayed or left undone. As a collective group of concepts, prioritisation, rationing and missed care will be henceforth referred to as 'unfinished care' (Fig. 1) [3].

The study of unfinished care originated in acute care settings [8–14], with research predominately conducted in hospitals. More recently, the focus of this research field has expanded to incorporate studies of residential aged care facilities [7]. These facilities are susceptible to unfinished care due to the impact of aging populations on resources [15, 16], staffing issues related to ratios and skill mix [17–19] and a consumer population with complex care needs related to frailty, dementia and multimorbidity [20, 21]. Residential aged care facilities are required to provide social care, pastoral care and meaningful activities in addition to assistance with daily living and clinical care, which raises questions about how these different requirements for providing care to residents are managed in such pressurised environments.

Most research on unfinished care in this setting has focused on implicit rationing (action) or missed care (outcome) [7] (Fig. 1). Previous studies have explored the types of care that are rationed/missed [22], the frequency of rationing/missed care [23, 24], and the factors that influence rationing/missed care [25, 26]. Within this field, very little is known about prioritisation (internal process). A recent integrative review on unfinished care

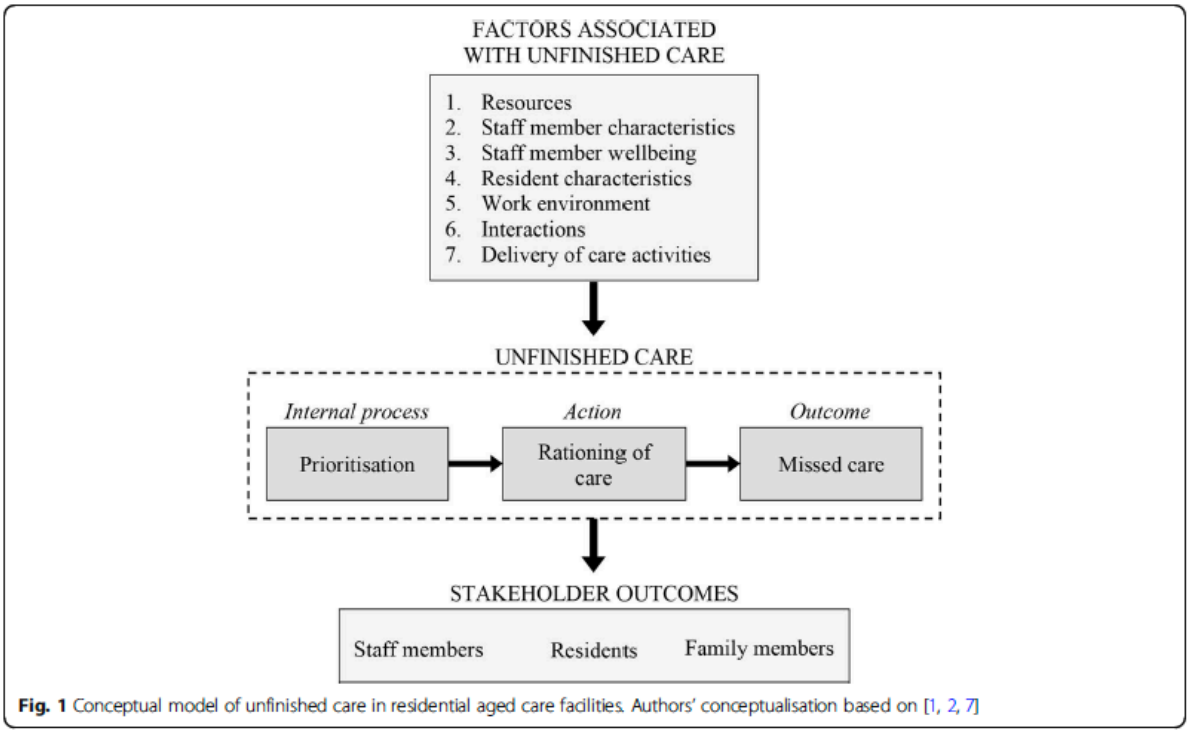

Fig. 1 Conceptual model of unfinished care in residential aged care facilities. Authors' conceptualisation based on [1, 2, 7]

[7] identified only two journal articles [27, 28] that explicitly studied prioritisation of care within residential aged care facilities. Both articles reported on a larger study that interviewed clinical staff members (physicians and nurses) regarding prioritisation dilemmas and prioritisation decisions. The perspectives of non-clinical care staff, who in many cases make up the majority of residential aged care workforces [29], were not included. As prioritisation is an important precursor to missed care and potential adverse patient outcomes, it is important to understand how clinical and non-clinical staff members prioritise the care they provide to residents.

This study formed part of a larger research project exploring prioritisation in residential aged care settings [30]. The objective of the study was to investigate how care staff prioritise the care provided to aged care residents living in residential aged care facilities. The study had two research questions:

1. What are staff members priorities regarding the care they provide to residents?
2. How do staff members prioritise care?

Methods

Study design

This was a multi-site Q methodology study of care priorities among staff members working in residential aged care. The study comprised a card sorting activity using Q methodology, a think-aloud task, a demographics questionnaire, and post-sorting and semi-structured interviews. Q methodology is a method used to study subjectivity through the integration of qualitative and quantitative data [31–33]. It involves participants ordering a set of cards (Q sort deck) on a pre-established forced distribution (Q sort grid, Fig. 2), by level of relevance, agreement, or in the case of this study, importance [34]. Participants' finished Q sorts (the patterns of card placement on the Q sort grid) are then correlated through by-person factor analysis to identify distinct viewpoints, or 'shared meaning' (factors) [35, 36]. For a more detailed explanation of Q methodology, we recommend Watts and Stenner's *Doing Q Methodology: Theory, Method and Interpretation* [37].

Q methodology is an ideal method to address the study objective as it requires participants to decide on the importance of all care activities in relation to each other. Ultimately, it forces participants to prioritise some aspects of care over others. The purpose of the think-aloud task was to provide additional insight into participants' decision-making processes by asking them to verbalise their thoughts and feelings during the Q sorting activity [38, 39]. The post-sorting interviews [32] focused on individual card placement and enabled the researcher to clarify anything participants said during the think-aloud task. Semi-structured interviews provided information about participants' personal experiences of having to prioritise care in the past.

Sample and setting

Study facilities included five Australian residential aged care homes managed by one aged care provider, in New South Wales (NSW) ($n = 3$) and Queensland (QLD) ($n = 2$). Care staff were invited to participate if they were currently employed at one of the five sites, were willing and able to give informed consent, and routinely provided direct care to residents. Purposive sampling, a common convention of Q methodology [40, 41], was used to recruit staff members from different roles across the organisation in order to capture a diverse range of perspectives.

Materials

The Q sort deck comprised 34 magnetic cards, each representing an aspects of care provided to residents. The cards were developed through a review of the literature [7] and discussions with the management team from one of the participating facilities. Each card comprised a statement (e.g., "Assistance with toileting needs"), a corresponding graphic (e.g., a toilet), and relevant examples (e.g., "Assistance using the toilet" and

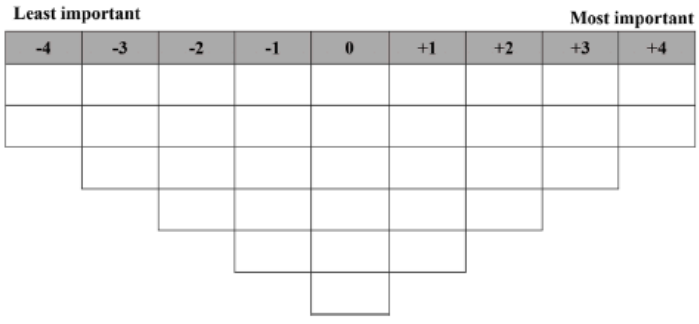

Fig. 2 Q sort grid

"Incontinence pads are changed regularly"). The Q sort grid was displayed on a magnetic whiteboard (Fig. 2).

The post-sorting interviews covered three topics: 1. The reasoning behind the placement of salient cards, including cards at the extremes of the Q sort grid, 2. Cards that participants thought were not represented by the Q sort deck, 3. Modifications to the completed Q sort. The demographics questionnaire and semi-structured interview guide were developed for this study and are presented in Additional file 1.

Procedure

Participants were presented with the Q sort deck, Q sort grid and the following instruction: "Order the cards from what is 'Least important' (-4) to you, to what is 'Most important' (+4) to you in terms of the care provided to residents." In order to familiarise participants with the cards and reduce cognitive load, they were first asked to organise the cards into three piles: most/more important, somewhat important, and least/less important. Using the most/more important pile first, followed by the least/less important pile, and then the somewhat important pile, participants organised the cards onto the grid from their highest to lowest priorities.

Participants engaged in the think-aloud task concurrent to the Q sorting activity. After all cards had been placed under the designated ranks on the Q sort grid, participants were asked the post-sorting interview questions and given the opportunity to change the placement of cards before completing the demographic questionnaire and the semi-structured interviews. In order to accurately capture participants' responses, researcher field notes were composed, study sessions were audio recorded, and photographs of participants' final Q sorts were taken. Audio recordings were transcribed verbatim.

Analysis

Data from the Q sorting activity were analysed using established Q techniques, based on inverted factor analysis [42–44]. Unlike traditional factor analysis, where participants' responses on a number of variables are correlated together (i.e., by-variable), Q factor analysis (i.e., by-person) tests the associations between participants [44]. The purpose of this analysis is to identify 'factors' which are clusters of participants who have ordered their cards similarly on the Q sort grid. These factors represent distinct viewpoints on a particular topic, such as prioritisation. PQMethod V.2.35, a purpose-designed statistical program [45], was used to carry out the analysis. Centroid factor analysis was performed to extract factors as it allows for the exploration of all possible factor solutions, as opposed to Principle Component Analysis which delivers the mathematically best solution [35]. The numbers of factors retained in the analysis was determined by the following criteria [35, 46]: greatest amount of variance explained while maximising the number of defining Q sorts (Q sorts significantly loading on a *single* factor [factor loading ≥ 0.45, $p < 0.01$]); factors with eigenvalues greater than 1; and at least two defining Q sorts for each factor. Varimax rotation [36], an automatic rotation process, was then conducted to maximize the study variance explained by the factor solution. For each factor retained in the analysis, PQMethod produced a factor array, which is a representative Q sort based on a weighted average of individual Q sorts loading on a particular factor [36] (see Additional file 2).

Factor interpretation

While analysis is quantitative, factor interpretation in Q methodology is largely a qualitative process of narrativizing each retained factor into a representative viewpoint. KL consulted with KC and LAE to label and interpret each viewpoint using four information sources: *1. Crib sheets.* Crib sheets [47] summarised the placement of cards at extreme ranks, distinguishing statements and consensus statements. Distinguishing statements refer to cards that have been ranked significantly different in one viewpoint compared to all other viewpoints. Consensus statements are cards that do not significantly distinguish between any two factors; *2. Participant transcripts.* For each factor, transcripts of the participants who loaded significantly on that viewpoint were examined using NVivo V.12 [48] to situate factor arrays in context; *3. Researcher field notes.* Observations were recorded during study sessions; *4. Colour-coded categorisation system.* The factor arrays were transformed into digital replications of the Q sort grid in order to visually represent the entire viewpoint for each factor. KL devised a colour-coded system to classify cards by care category: clinical care, activities of daily living, respect, psychosocial care, and independence and choice (see Additional files 3, 4, 5 and 6). Inspection of the colour-coded factor array representations illustrated how different types of care were differentially prioritised between participants loading on the different viewpoints.

Results

Thirty-one staff members participated in the Q sorting activity. Four factors, accounting for 62% of study variance, satisfied the inclusion criteria and were interpreted as narrative accounts of viewpoints. This four-factor solution was defined by twenty-two participants (71%) whose Q sorts significantly loaded on (i.e., correlated with) a single factor ($p < 0.01$). The other nine Q sorts either significantly loaded on more than one factor ($n = 8$) or did not significantly load on any factor ($n = 1$).

Demographic information for the total sample and for each factor is presented in Table 1.

The analysis revealed some correlation between the four factors (Table 2). After reviewing the factor arrays (Additional file 2) and colour-coded care categories (Additional files 3, 4, 5 and 6), analysing participant transcripts, and exploring alternative factor solutions, the research team concluded that retaining all four factors was the most appropriate solution as each factor represented a distinct viewpoint. These viewpoints were named: Viewpoint 1: Prioritisation of clinical care; Viewpoint 2: Prioritisation of activities of daily living; Viewpoint 3: Humanistic approach to the prioritisation care; and Viewpoint 4: Holistic approach to the prioritisation of care.

The following section details narratives for each viewpoint. Card names are presented as single quotations, followed by the corresponding rank number on the Q sort grid in brackets, based on the factor arrays. Distinguishing statements at $p < 0.05$ and $p < 0.01$ are indicated with a single and double asterisk, respectively.

Table 2 Correlation matrix

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1	1.0000	0.3361	0.5493*	0.7008*
Factor 2	0.3361	1.0000	0.1075	0.3781
Factor 3	0.5493*	0.1075	1.0000	0.5810*
Factor 4	0.7008*	0.3781	0.5810*	1.0000

* Two factors are significantly correlated $p < 0.01$

Factor interpretation

Viewpoint 1: prioritisation of clinical care: ensuring residents' health and safety

Viewpoint 1 accounted for 23% of study variance and comprised 10 Q sorts from four Care Assistants, three Registered Nurses, one Activities and Lifestyle Officer, and two Managers. Participants who loaded significantly on this viewpoint prioritised clinical aspects of care, as reflected in the cards ranked as most important: 'Monitoring/Safety' (+ 4), 'Medication management' (+ 4), 'Medical condition management' (+ 3), 'Staff knowledge' (+ 3**), and 'Resident information' (+ 3**). The

Table 1 Participant demographics

	Overall ($n = 31$)	Factor 1 ($n = 10$)	Factor 2 ($n = 4$)	Factor 3 ($n = 3$)	Factor 4 ($n = 5$)
Age range					
18–25	1 (3.2%)	0 (0%)	1 (25%)	0 (0%)	0 (0%)
26–35	12 (38.7%)	6 (60%)	1 (25%)	0 (0%)	1 (20%)
36–45	7 (22.6%)	1 (10%)	1 (25%)	0 (0%)	1 (20%)
46–55	3 (9.7%)	1 (10%)	0 (0%)	0 (0%)	1 (20%)
56+	6 (19.4%)	1 (10%)	0 (0%)	3 (100%)	2 (40%)
Not disclosed	2 (6.5%)	1 (10%)	1 (25%)	0 (0%)	0 (0%)
Sex					
Male	13 (41.9%)	4 (40%)	0 (0%)	2 (66.7%)	1 (20%)
Female	18 (58.1%)	6 (60%)	4 (100%)	1 (33.3%)	4 (80%)
Australian state					
New South Wales	17 (54.8%)	8 (80%)	2 (50%)	0 (0%)	1 (20%)
Queensland	14 (45.2%)	2 (20%)	2 (50%)	3 (100%)	4 (80%)
Primary job position					
Care Assistant	15 (48.4%)	4 (40%)	4 (100%)	1 (33.3%)	1 (20%)
Registered Nurse	7 (22.6%)	3 (30%)	0 (0%)	0 (0%)	0 (0%)
Lifestyle and Activities Officer	5 (16.1%)	1 (10%)	0 (0%)	0 (0%)	4 (80%)
Pastoral Carer	2 (6.5%)	0 (0%)	0 (0%)	2 (66.7%)	0 (0%)
Facility or Care Manager	2 (6.5%)	2 (20%)	0 (0%)	0 (0%)	0 (0%)
Length of employment at current facility					
< 2 years	13 (41.9%)	6 (60%)	0 (0%)	1 (33.3%)	2 (40%)
2–3 years, 11 months	8 (25.8%)	2 (20%)	2 (50%)	1 (33.3%)	1 (20%)
4–5 years, 11 months	4 (12.9%)	0 (0%)	1 (25%)	0 (0%)	2 (40%)
≥ 6 years	4 (12.9%)	1 (10%)	0 (0%)	1 (33.3%)	0 (0%)
Not disclosed	2 (6.5%)	1 (10%)	1 (25%)	0 (0%)	0 (0%)

Note: Value for factors 1–4 calculated as a percentage of n for each factor

prioritisation of clinical care is reflected in the following quote from Participant 2 (Manager):

> *"At the end of the day, it's about what is clinically sound … it is about what is our top priority, which is keeping the residents safe from injury or medical harm and that our staff are knowledgeable about their residents' medical care needs."*

All of the Registered Nurses and Managers represented by the four factor solution mapped to Viewpoint 1. These participants explained that clinical care was at the forefront of their care duties. The other five participants loading on this viewpoint acknowledged the importance of providing clinical care, despite it not directly relating to their job responsibilities. Participants indicated that residents were in aged care facilities because they needed help managing medical needs. They reasoned that residents, and older populations in general, often have co-morbidities, complex medical problems, cognitive impairment, and depression and anxiety.

Participants spoke about how aspects of care were interrelated and how not attending to certain care tasks could have adverse flow-on effects. For example, Participant 6 (Activities and Lifestyle Officer) explained how problems can escalate:

> *"If someone's constipated, they don't want to eat, they will vomit, and it's painful, and then they have to pass a hard stool, they get a skin tear in their rectum or worse still they have a rupture, then where are we at? We've got a complex medication condition from not toileting."*

Viewpoint 1 was also characterised by a prioritisation of shared knowledge ('Staff knowledge', + 3** and 'Resident information', + 3**). Participants reported that it was important for staff members to know about residents' medical conditions and specific needs (e.g., mobility) in order to provide good care and prevent harm. Participants expressed that residents had a right to know about their medical care—it was their care, their bodies, and they knew best how they felt. Although 'Family information' (+ 1) was ordered relatively high, it was ranked lower than the other two knowledge-related cards, as participants said that residents were their priority and their care came first.

Participants tended to base their prioritisation of clinical care on two key issues: safety and the prevention of harm; and ensuring physical and mental health. Aspects of care across the spectrum of importance, from the lowest to the highest placed cards, were linked with these two issues. For example, 'Medication management' (+ 4) was important in minimising pain and managing depression and anxiety, 'Repositioning' (0), although ranked as a lower priority, was linked to pressure sore reduction and infection avoidance, and 'Nail care' (− 3) was described by participants as having limited impact on residents' health or safety.

Although participants acknowledged the importance of providing residents with independence, all independence-related items (except those part of medical care, i.e., resident decision-making and resident information), were ordered as low priorities. Participants provided three reasons for these decisions. First, choice was not viewed to be as important as medical care. Second, many residents have dementia and as such, experience confusion and an inability to make appropriate choices. Third, affording residents choice and independence could put them at risk, conflicting with participants' priority of safety.

Concerns over residents' safety were reflected in participants' responses to the two lowest ranked cards, 'Seating choice' (− 4) and 'Choice about room environment' (− 4). In offering choice of seating during group activities, participants worried about safety considerations surrounding mobility aids and wheelchairs, risk of falls and toileting needs. Residents' choices about their room brought up issues of access and space, safety hazards, and dangers of old furniture. Participants spoke about providing residents with choice and independence "within reason" (Participant 6, Activities and Lifestyle Officer).

A common view held by participants loading on Viewpoint 1 was that although 'Conversations' (− 2) with residents was very important, staff members did not have enough time to talk to residents, making it a low priority. For example, Participant 27 (Registered Nurse) said:

> *"Because there are other things to get done, we don't have time, you know? We'd love to sit and chat with them [residents] and sometimes that's what they need, but we have things to do … other priorities."*

Viewpoint 2: prioritisation of activities of daily living: fulfilling role responsibilities

Viewpoint 2 accounted for 13% of study variance and comprised four Q sorts from Care Assistants. This viewpoint represented participants who prioritised residents' daily needs, for example 'Oral care' (+ 4**), 'Assistance with meals' (+ 4*), 'Bathing and Showering' (+ 3*) and 'Personal grooming' (+ 2**). Attending to daily needs was regarded by participants as vital to preventing medical complications, for example, prioritising 'Toileting' (+ 3) in order to avoid urinary tract infections. Due to the personal nature of daily care tasks such as toileting or bathing and showering, participants held that 'Privacy' (+ 3) was a priority for resident care.

Participants who mapped to this viewpoint were role-oriented, speaking about priorities in terms of their job responsibilities. They explained that they were in direct contact with residents, providing assistance for those with limited physical abilities, and monitoring residents ('Monitoring/Safety', + 2). Participants spoke about being the first ones to notice problems and described examples of their role as information brokers—communicating important information to family, management, Registered Nurses and other staff members, as depicted by the following quote from Participant 7 (Care Assistant):

> *"This one [card] is also important, that we have to keep an eye [on], because as we are the ones that are giving shower, and taking care, giving them wash, and applying cream on them, so this one is on us, and if there is any skin damage, or skin tear, any bruises, we are the ones who see first and notify to our RN."*

This focus on role responsibilities influenced participants' lower priorities, in particular 'Medical condition management' (− 3**), 'Family information' (− 3**) and 'Resident information' (− 4**). Participants said that they associated clinical care and sharing of medical information with the Registered Nurse's role, as demonstrated by the following response from Participant 20 (Care Assistant):

> *"We don't have anything to do with the medical side, so it's left to the RN. We just tell them [residents] to speak to the RN."*

Despite ranking the majority of clinical care cards as less important, 'Nutrition' (+ 2), 'Monitoring/Safety' (+ 2) and 'Medication management' (+ 2) were seen as important aspects of care as they were connected to participants' duties (e.g., assistance with meals) or had an impact on the way they delivered care. For example, Participant 20 (Care Assistant) explained that if medication was not provided at the right time, this affected residents' functioning and mood.

Aspects of care categorised as psychosocial care, for example, 'Social activities' (− 2) and 'Spiritual activities' (− 3) were also a low priority as participants explained that this was part of other staff members' roles. The only psychosocial card ranked towards the most important end of the Q sort grid was 'Emotional support' (+ 1*). Participants explained that as direct carers, they often encountered residents who were upset, lonely or in a bad mood, and as such, providing emotional support was important to them. Similar to Viewpoint 1, 'Conversations' (− 2) was ranked as less important. Participants expressed that there was not enough time to talk to residents as they were busy prioritising their assigned tasks. Participant 17 (Care Assistant) explained:

> *"We would like to talk to them [residents] but we don't have enough time … just taking care of their personal needs, we're so busy … with showering them, with getting them fed and everything so we don't really have time to … talk with people."*

Participants explained that affording residents choices was important, however choice-related cards ('Meal choice', 0*; 'Clothing choice', − 1*; 'Seating choice' −2; 'Choice about room environment', −4) were ordered as lower priorities due to the restrictions of certain residents' needs. For example, Participant 7 explained that 'Choice about room environment' (− 4) was a lower priority depending on whether participants needed lifters in their room and how residents' choices about their room environment impacted available space.

Viewpoint 3: a humanistic approach to the prioritisation of care: enhancing residents' wellbeing in their final years

Viewpoint 3 accounted for 14% of study variance and comprised three Q sorts. Both Pastoral Carers loaded on this viewpoint, as well as one Care Assistant. This viewpoint represented participants who took a humanistic approach to care, prioritising residents' overall wellbeing, as indicated by some of the higher ranked cards: 'Emotional support' (+ 4*), 'Respect' (+ 4), 'Spiritual activities' (+ 3**), 'Privacy' (+ 3); 'Conversations' (+ 2), and 'Independence' (+ 2). Participants' humanistic approach to prioritising care was reflected in the language they used throughout the study session. Examples include, "openness to learning", "what's worth celebrating", "meaning in life", and "sense of their life story". Residential aged care facilities were described as "the last home" (Participant 22, Care Assistant) or "the last stop" (Participant 19, Pastoral Carer), however, participants emphasised that residents' "end stage of life" (Participant 19, Pastoral Carer) did not need to be a negative experience, but rather could be filled with human connections, meaningful activities and purpose. Participant 31 (Pastoral Carer) spoke about the importance of promoting a meaningful life for residents:

> *"There's still meaning in life, there's still activities that they can participate in. They can still have an openness to learning new things, they do—they go to art class, they go to discussion groups, they're on fundraising committees. So that life isn't over, that they're not on the scrap heap. I think just the respect that they get … it's not over until it's over and that they can still have a life here."*

Participants discussed the need to help residents celebrate their lives and add meaning to their time in the care facilities. They also spoke about acknowledging residents' interests and their life histories—the person they were before they entered residential care. In acknowledging residents as individuals, participants viewed 'Respect' (+ 4), 'Privacy' (+ 3) and affording residents' dignity as important parts of the care experience.

Similar to Viewpoints 1 and 2, participants expressed that time constraints were a barrier to engaging in meaningful interactions with residents. Regardless, participants loading on Viewpoint 3 still prioritised 'Conversations' (+ 2). Participant 22 (Care Assistant) explained that they would "find time" to chat with residents. Related to interactions with residents was participants prioritisation of 'Emotional support' (+ 4*). Participants described taking on a comforting role, particularly for residents who did not have visiting family members. Even small gestures could support residents, for example Participant 22 (Care Assistant) recounted:

> *"We are the people that see them [residents] the most, we see them more than the family … sorry I always get emotional. There's one lady in the morning … she got up in the morning and I said, 'how are you this morning?' and she said 'oh, not feeling well' and I said, 'well what do you need?' and she said, 'I could do with a hug'. So I said, 'I'll get up and give you a hug'. So I gave her a hug and we stood there for a minute or two, and you know, it's those little things, where you can help somebody and make their day better I suppose."*

Participants indicated that 'Emotional support' (+4*) was especially important for residents in their initial months living in a residential care home, which was a time of adjustment and loss (of family, independence and health). This transition was also viewed as affecting family members. One Pastoral Carer (Participant 31) explained that families often experienced guilt, conflict, and worry when residents first moved into a residential care facility, and that it was important for the family to remain involved in care, to "share memorable times" and participate in activities with residents. This may account for why 'Attitudes towards family' (+ 1*) was a higher priority for participants loading on Viewpoint 3.

One of the two highest priorities for this viewpoint was 'Spirituality' (+ 4**). Religious beliefs were seen as an important aspect of care for a lot of residents who belonged to a generation that placed high value on religion. Spirituality was also conceptualised as a broader concept, including spiritual connection with "nature, music or art" (Participant 31, Pastoral Carer). Participants reported that different types of care were interrelated and in order to keep residents physically and mentally well, they needed to be spiritually and emotionally looked after. This is illustrated by the following quote from Participant 19 (Pastoral Carer):

> *"Spiritual health, mental health and physical health are so, so, so related, so that when your physical health or mental health breaks down, you're spiritual wellbeing becomes a boost and a support to get you back on track physically and mentally as well."*

Maintaining residents' physical health and the provision of clinical care was important to participants, with cards such as 'Medical condition management' (+ 3), 'Monitoring/Safety' (+ 2) and 'Medication management' (+ 1) occupying high ranks. When participants spoke about clinical care, they often related it to residents' comfort and the importance of minimising pain. Assistance with activities of daily living were a lower priority compared to clinical care, with cards ranked between 0 and − 3. The four choice cards, 'Seating choice' (− 4), 'Clothing choice' (− 4), 'Meal choice' (− 2) and 'Choice about room environment' (− 2) occupied some of the lowest ranks on the Q sort grid. Participants held that although the broader concept of 'Independence' (+ 2) was a priority, choice cards did not have the same "weight" or "necessity" (Participant 31, Pastoral Carer) as other cards. Choice was "ideal and nice to have" but "not a deal breaker" (Participant 19, Pastoral Carer).

Viewpoint 4: a holistic approach to the prioritisation of care: consideration of the whole care experience

Viewpoint 4 accounted for 12% of study variance and comprised five Q sorts from four Activities and Lifestyle Officers and one Care Assistant. Viewpoint 4 was a composite of Factors 1–3 representing a holistic approach to the prioritisation of care. It was the only viewpoint to have at least one card from each of the five care categories in the highest three ranks (Fig. 3).

Participants loading on Viewpoint 4 shared some of the principles expressed by other participants in the sample. For example, they acknowledged that emotional support was an important part of residents' care, especially during their transition into a residential aged care facility. They also placed importance on clinical care due to residents' comorbidities, risk of fall and medication needs. Participants considered different aspects of care to be interrelated, having the potential to impact one another. Those loading on Viewpoints 1–3 ordered the Q cards based on their prioritisation of a specific facet of care (Clinical care, Activities of daily living, and Humanistic aspects of care, respectively), whereas Viewpoint 4 participants prioritised a range of care elements, taking the whole care experience into consideration. Cards that

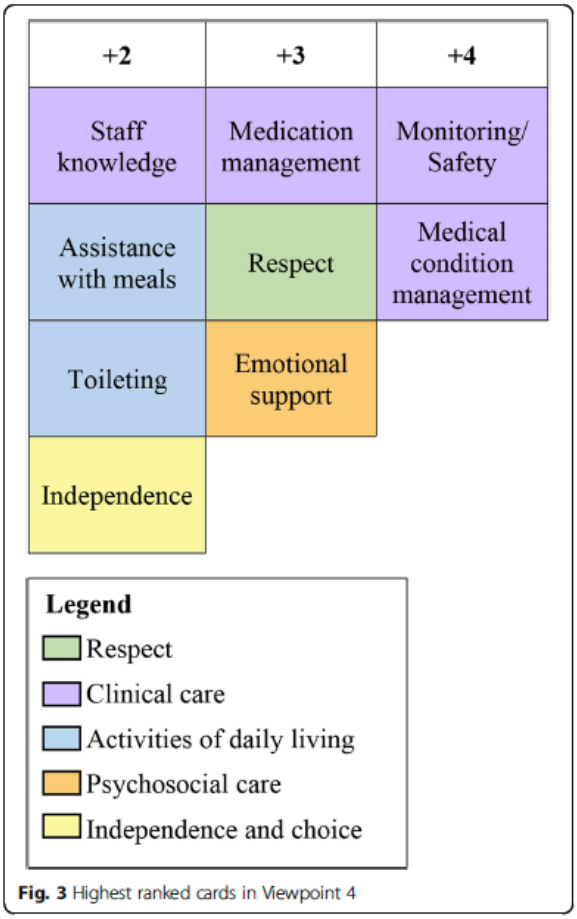

Fig. 3 Highest ranked cards in Viewpoint 4

covered broader concepts (e.g., 'Medical condition management', + 4; Independence', + 2; 'Respect', + 3) were ranked as top priorities, with more task-focused aspects of care ranked lower. This prioritisation reflected a broad philosophy of holistic care rather than a specific practical approach. One explanation for this pattern of sorting is that the majority of participants loading on this viewpoint were Lifestyle and Activities Officers who were not directly involved in some of the task-focused aspects of care such as 'Nail care' (– 4) or 'Skin care' (– 2). Participants' occupation also provided an explanation for why 'Social Activities' (0**) was ranked higher in Viewpoint 4 than in other viewpoints. The importance of social care was illustrated by the following quote from Participant 5 (Activities and Lifestyle Officer):

> *"So the fact that you have a program that, you know, it's not childish, it's a big influence in aging in place. And it's the things that people have done for many years growing old, like bridge, reading newspapers, watching their favourite programs, classic movies, and the fact that they can see classic movies on a big screen with subtitles in a cinema-like experience once or twice a week, opera, things that they really appreciate."*

'Social Activities' (0**) was not one of the highest ranked priorities, occupying the centre of the Q sort grid. Participants explained that there was no danger in not providing social activities. This was a common justification participants gave for ranking cards lower on the Q sort grid, for example, 'Nail care' (– 4) and 'Privacy' (– 1**). Whether these care needs were met or not was not considered a "life or death" situation (Participant 5, Activities and Lifestyle Officer). Related to this view was the opinion that some aspects of care could be delayed in favour of attending to more important aspects of care, as Participant 29 (Activities and Lifestyle Officer) explained:

> *"These things [higher ranked cards] are about physical, emotional wellbeing, and their self-worth, where the things over here [lower ranked cards] are some things you can fix, come back later on and fix and make it better."*

The four choice statements, 'Seating choice' (– 3), 'Choice about room environment choice' (– 3), 'Clothing choice' (– 2), and 'Meal choice' (– 2) were some of the lowest ranked cards. Participants considered the issue of cognitive impairment when sorting choice-related cards, as shown by the following quote from Participant 26 (Activities and Lifestyle Officer):

> *"Residents have choice about their meals, that's a tough one. I'd probably put that down here, you know with dementia and things, they don't necessarily make choices that would benefit them."*

One of the two lowest ranked cards was 'Attitudes towards family' (– 4*). Participants acknowledged that being welcoming to family was part of their job, but it was just not a priority. The following response from Participant 26 (Activities and Lifestyle Officer) demonstrates this view:

> *"Family members. I mean, it's important but I wouldn't say it's a priority."*

Consensus statements

Consensus statements at $p > 0.01$, i.e., cards that did not significantly distinguish between any two factors, included 'Bowel care', 'Choice about room environment', 'Repositioning', 'Assistance with walking', 'Resident

Table 3 Additional aspects of care suggested by participants

•Residents' dignity
•Residents' preferred timing of care
•Pain management
•Residents' comfort and having the right equipment for repositioning
•Cultural diversity
•Social outings
•Residents' experience of transitioning from home to a facility
•Confidentiality of residents' personal information and information shared in conversations with residents
•Involving family in care planning
•Staff safety/safe working environment
•The communication of residents' feedback to staff members

decision-making' and 'Respect'. The latter three cards were also consensus statements at $p > 0.05$.

Additional aspects of care

During post-sorting interviews, participants were asked if there were any aspects of care they thought were not adequately represented in the Q sort deck. Eleven participants suggested additional cards, presented in Table 3.

Discussion

Summary of findings

This study investigated what aspects of care staff working in residential aged care facilities prioritise, and how they prioritise care. Four distinct viewpoints were identified: Prioritisation of clinical care, Prioritisation of activities of daily living, Humanistic approach to the prioritisation of care, and Holistic approach to the prioritisation of care. Prioritisation of care was largely influenced by participants' occupation. Viewpoint 1 represented staff members from a variety of positions, with all Registered Nurses and Managers represented by the factor solution mapping to this viewpoint. Viewpoint 2 comprised only Care Assistants, Viewpoint 3 represented the views of Pastoral Carers in addition to one Care Assistant, and Viewpoint 4 encompassed four of the five Activity and Lifestyle Officers as well as one Care Assistant.

Across the sample, participants reported a deep care for residents and their quality of life. This was reflected in the prioritisation of the 'Respect' card, which was positioned in the top four rankings across the four factor arrays. Participants held that it was also important to them that residents were offered choices about their care where appropriate, however other aspects of care often had to be prioritised. Regardless of viewpoint or occupation, participants across the sample consistently ranked residents' choices, in terms of their room, food, seating and clothes, as lower priorities. Another barrier to providing more person-centred care was a lack of time. Participants explained that having meaningful conversations with residents was important to them but there was not always enough time to prioritise this.

Role division

Syed and colleagues found broadly similar role orientations to those identified by our research in their ethnographic study on work hierarchies (unequal social relations in the workplace), task orientation (highly focused work that prioritised the completion of tasks), and strict divisions of labour (tasks allocated based on job position, qualifications and skills) in long-term care facilities in Canada [49]. The research team observed that nurses conducted medication administration; support staff (e.g., recreation therapists) were engaged with socialisation and recreational activities; and personal support workers were involved with direct care (e.g., showering and toileting). Divisions of labour and high workloads led to the prioritisation of care duties based on role responsibility. The authors suggested that work hierarchies could potentially impede task sharing by enforcing boundaries between roles.

Daly and Szebehely argued that such a division of labour in residential care homes is partially a consequence of regulations adopted by some governments, which stipulate which occupations can carry out certain care tasks [50]. Their research on the work lives of assistant nurses (licensed or registered nurses) and care aides (e.g., personal support workers, nursing aides) in Sweden and Canada, found differences in the way care was delivered between the two countries. In Sweden, care was more relational and integrated, with care staff carrying out tasks across the spectrum of care (clinical care, personal care, social care, cleaning, cooking), regardless of occupation. In Canada, care was more task-oriented, regulated and formal. Similar to our findings about care prioritisation by role, there were boundaries around the delivery of care activities, with assistant nurses focused on clinical care and administrative tasks, and care aides carrying out personal care and some cleaning duties.

In our study, participants typically indicated that care tasks not part of their direct role duties were a lower priority. There was a common view that somebody else would attend to these low priority care tasks—they were someone else's responsibility. This was particularly true for participants loading on Viewpoint 2 who were highly role-oriented. In a study of missed care in acute settings, Kalisch found that one of the seven themes related to reasons for missed care was task division based on role, termed "it's not my job syndrome" [13]. This finding was supported by Kalisch's later research assessing the relationships between unlicensed assistive personnel and

registered nurses in hospital settings [51]. Registered nurses focused on the work only they were qualified to do, and were reluctant to engage with tasks they considered to be outside of their role.

Residents' choices about their care

During data collection, participants advanced that it was important to them that residents were offered choices about their care, however other aspects of care needed to be prioritised for various reasons. This finding is supported by Simmons et al.'s work [52], in which staff members demonstrated a preference for affording residents choice, but could not always translate this preference to real-world contexts. Participants in Simmon et al.'s study discussed several barriers to the provision of choice, including residents' dementia and staff members' need to attend to residents' physical health [52]. Other barriers to providing choice and autonomy to residents identified by previous research include a competing demand for safety, scheduled routines, and organisational policy and regulations [53–57]. These barriers align with the explanations participants in the current study gave for ranking choice-related cards as lower priorities. For example, although participants did not explicitly discuss the limitations of routines and organisational regulations on choice, they were very role-oriented, with their priorities influenced by their occupational position. As such, they may have tended to focus on regulated routines, role responsibilities and assigned care duties, forcing choice-related items to be ranked as lower priorities.

Implications for practice and policy

The prioritisation of care based on role responsibilities, although often necessary (e.g., as dictated by government regulations, level of training, and qualifications), has practical implications regarding rationing of care and missed care. Our research shows that when care staff are highly focused on their assigned care duties, they place less priority on care tasks outside the scope of their role. Assuming other staff members will attend to a care activity (i.e., "it's not my job syndrome") means that lower priority tasks are susceptible to being missed. Furthermore, less concrete aspects of care, particularly those related to person-centredness such as offering residents choices about their care and conversations with residents, may be traded in favour of discrete tasks such as showering residents.

Participants' perceptions of their job roles, and apparent division of labour, highlighted a systems-level issue regarding the training of residential aged care staff. In order to improve the safety and quality of care, staff training should incorporate a holistic approach to care provision. Participants loading on Viewpoint 1, particularly clinical staff members, expressed that residents were living in care facility because they needed assistance with their medical needs. However, there are a variety of reasons for transitioning into a residential aged care facility including the need for assistance with activities of daily living (e.g., toileting) or domestic tasks (e.g., cooking), reassurance of safety, and companionship/socialisation. Re-focusing training programs to promote care integration across services could better support staff to provide holistic care to residents and prevent care from being missed or neglected.

Internationally, there has been a push for a culture shift regarding the care provided to older populations, including those living in residential aged care facilities, from being institution-focused, to a more person-centred approach [58–62]. Person-centred care involves treating residents with dignity, engaging residents and their families in care planning and decision-making, designing care processes to meet the needs of residents, and respecting residents' preferences and choices regarding their care [63]. In some countries, person-centred care in residential aged care facilities is mandated by government regulations, for example, Canada's Residential Homes for Seniors Standards (resident-directed care) [64], England's Health and Social Care Act 2008 Regulations (person-centred care) [65], New Zealand's Health and Disability Service Standards (consumer rights) [66] and the United States of America's Federal Code of Regulations (person-centred care) [67]. In Australia, residential aged care facilities must comply with the recently released Aged Care Quality Standards (July 2019) which include 'consumer choice and dignity' as the first of eight standards [68]. During the time of data collection, a previous set of quality standards were in effect. Relevant to residents' choices about their care, standard 3.9 stated that "Each care recipient … participates in decisions about the services the care recipient receives, and is enabled to exercise choice and control over his or her lifestyle …" [69].

Our research demonstrated that despite policy requirements, and participants' expressed desire to afford residents' involvement in their care, residents' choices were not prioritised by staff members. The view that residents' choices are a lower priority than most other aspects of care has implications for quality of care and residents' wellbeing. There is evidence that residents' perceived autonomy and choice is negatively associated with depressive feelings [70], and positively associated with quality of life [70], life satisfaction [71], meal service satisfaction and nutritional status [72], and satisfaction with care preferences being met [56].

Future research

Although assessment of the relationship between prioritisation and missed care was outside the scope of this

study, our findings illustrated how assigning a lower priority to a care activity could lead to care being missed. Participants admitted that tasks that were not part of their assigned care duties were a lower priority and seen as someone else's responsibility. Further investigations are warranted into the links between role-responsibilities, prioritisation of care, and missed care in residential aged care facilities, and the consequences these have for resident outcomes.

Another area for future research is the investigation of strategies used by care staff to avoid lower priority care from being missed or falling through the cracks. Our study indicated that one such strategy is the role Care Assistants hold as 'knowledge brokers'. 'Brokers' are people within a network who connect other people or groups of people [27]. Specifically, 'knowledge brokers' transmit information and knowledge between people, facilitating the coordination of care [27].

Strengths and limitations

Unlike other methods, for example, surveys, where participants independently assign each item a rating, Q methodology aims to produce a gestalt in which the interpretation of each card's placement is considered in relation to every other card on the Q sort grid [32]. In this study, each participant's resulting Q sort therefore represented an integrated and 'whole' view of care prioritisation. An additional strength of Q methodology is the integration of qualitative and quantitative data at the conceptualisation, data collection, analysis, and interpretation stages of research, situating the study as a fully integrated mixed design [73, 74].

Previous studies of prioritisation in residential aged care [27, 28], and related research on implicit rationing and missed care [7], have predominantly focused on the perspectives of nurses, physicians and carers. Our research acknowledged the multidisciplinary nature of residential aged care by involving other care staff providing direct care to residents: Managers, Pastoral Carers, and Activities and Lifestyle Officers. Other stakeholder groups such as allied health professionals, physicians, and agency staff members were not invited to participate in this study as they were not directly employed by the care organisation. Inclusion of these groups may have provided additional perspectives.

This study was conducted in five facilities across two Australian states, reducing the effects of facility-related context on study findings. Despite the variability in facility environments, all participating sites belonged to a single organisation. Seven participants declined the invitation to participate in the study, with time restrictions cited as the main reason for non-participation. This could have potentially introduced selection bias, however, with a participation rate of 81.6% ($n = 31/38$), it is unlikely to have had substantial impact on study findings.

Conclusions

Our study identified four distinct viewpoints regarding care prioritisation in residential aged care facilities: Prioritisation of clinical care, Prioritisation of activities of daily living, Humanistic approach to the prioritisation of care, and Holistic approach to the prioritisation of care. Prioritisation of care was largely influenced by participants' occupation and perceived role responsibilities. This finding has implications for missed care, as care activities viewed as falling outside the scope of participants' assigned duties were consistently considered lower priorities. The division of care activities based on job role signifies that training programs should be adapted to incorporate more holistic and integrated approaches to care. Across the sample, participants consistently ranked residents' choices regarding room environment, seating, clothes and meals as lower priorities. Our research suggests that despite government regulations pertaining to person-centred care, residents' preferences regarding their care are often overlooked in favour of more task-specific aspects of care.

Supplementary information

Supplementary information accompanies this paper at https://doi.org/10.1186/s12913-020-05127-3.

Additional file 1. Demographic questionnaire and semi-structured interview guide.

Additional file 2. Q cards, care categories and factor arrays.

Additional file 3. Visual representation of the factor array for Factor 1.

Additional file 4. Visual representation of the factor array for Factor 2.

Additional file 5. Visual representation of the factor array for Factor 3.

Additional file 6. Visual representation of the factor array for Factor 4.

Abbreviations

MQRTP: Macquarie University Research Training Program; NSW: New South Wales; QLD: Queensland

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Authors' contributions

KL conceptualised the study, collected and analysed the data, and produced the first draft of the manuscript. KL, KC, VM, LAE and JB contributed to the study design. KL, KC, VM and LAE developed the study materials. KC and LAE assisted KL with the interpretation of the four-factor solution. All authors contributed to revisions of subsequent drafts of the manuscript and approved the final submission.

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The funding body did not have a role in the design of the study, data collection and analysis, the interpretation of data, or writing the manuscript.

Availability of data and materials
Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

Ethics approval and consent to participate
The study was developed in accordance with national guidelines [75] and was approved by the Human Research Ethics Committee for the umbrella organisation overseeing the facilities and Macquarie University Human Research Ethics Committee. Informed written consent was obtained from all participants.

Consent for publication
Not applicable.

Competing interests
The authors declare that they have no competing interests.

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ADDITIONAL FILES

Additional file 1: Demographic questionnaire and semi-structured interview guide

Demographic questionnaire

Age:
Gender:
Job title:
Length of time working at current organisation:

Semi-structured interview guide

1. At the beginning of each shift, how do you determine what your priorities are for that day?
2. How might your priorities change over the course of the day? What makes them change?
3. What things prevent you from attending to high-priority activities?
4. When you don't have enough time to complete all your required work in a shift, how do you manage your priorities?
5. What strategies do you use to make sure that care tasks that aren't carried out on time get completed?
6. How do you think your care priorities compare to the priorities of residents?
7. How do you think your care priorities compare to the priorities of residents' family members?
8. Is there anything else you want to talk about regarding the care you provide or care prioritisation?

Additional file 2: Q Cards, care categories and factor array

Card labels	Q card statements	Care category	Factor arrays—card rankings[a]			
			Factor 1	Factor 2	Factor 3	Factor 4
Assistance getting dressed	Assistance getting dressed when needed	Activities of daily living	-1*	+1	-3*	0
Assistance with meals	Assistance with meals when needed	Activities of daily living	+1	+4*	0	+2*
Assistance with walking	**Assistance with walking when needed**	**Activities of daily living**	**0**	**+1**	**0**	**+1**
Attitudes towards family	The facility/home is welcoming to family members	Psychosocial care	0	-2	+1*	-4*
Bathing and showering	Assistance with bathing/showering when needed	Activities of daily living	+2	+3*	-1*	+1
Bowel care	**Bowel care is provided when needed**	**Activities of daily living**	**+1**	**0**	**0**	**+1**
Call bell	Residents' call bells are responded to in a timely manner	Clinical care	+2	0	+1	0
Choice about room environment	**Residents have choice about what is in their room**	**Independence and choice**	**-4**	**-4**	**-2**	**-3**

Clothing changed	Residents' clothes are changed when needed	Activities of daily living	-3	0	-2	-2
Clothing choice	Residents have choice about the clothes they wear	Independence and choice	-2	-1*	-4	-3
Conversations	Time is taken to chat with residents	Psychosocial care	-2	-2	+2	+1
Emotional support	Emotional support is provided to residents	Psychosocial care	-1**	+1*	+4*	+3*
Family information	Family members are informed about residents' medical care	Clinical care	+1	-3**	+1	+1
Independence	Residents have independence	Independence and choice	-1	-1	+2	+2
Meal choice	Residents have choice about their meals	Independence and choice	-2	0*	-2	-2
Medical condition management	Residents' medical conditions are managed	Clinical care	+3	-3	+3	+4
Medication management	Correct medication at the right time	Clinical care	+4	+2**	+1	+3
Mobility	Residents are supported to keep active and mobile	Clinical care	-1	-1	0	0

Monitoring/ Safety	Residents are kept safe from injury or medical harm	Clinical care	+4	+2	+2	+4
Nail care	Nail care is provided when needed	Activities of daily living	-3	-1	-3	-4
Nutrition	Residents' meals are nutritious	Clinical care	+1	+2	-1	-1
Oral care	Regular dental and oral care is provided	Activities of daily living	+0	+4**	-1	-1
Personal grooming	Assistance with personal grooming when needed	Activities of daily living	-1	+2**	-1	-1
Privacy	Residents' privacy is respected	Respect	+2	+3	+3	-1**
Repositioning	**Assistance with repositioning when needed**	**Activities of daily living**	**0**	**0**	**-1**	**0**
Resident decision-making	**Residents are involved in making decisions about their care**	**Clinical care**	**+1**	**0**	**+2**	**0**
Resident information	Residents are informed about their medical care	Clinical care	+3**	-4**	0	-1
Respect	**Residents are treated with respect**	**Respect**	**+2**	**+1**	**+4**	**+3**
Seating choice	Residents can choose where to sit	Independence and choice	-4	-2	-4	-3

	during group activities					
Skin care	Skin care is provided when needed	Activities of daily living	0	+1	-2	-2
Social activities	Residents are offered a variety of social and leisure activities	Psychosocial care	-2	-2	-3	0**
Spiritual activities	Opportunities for residents to engage in spiritual activities	Psychosocial care	-3	-3	+3**	-2
Staff knowledge	Staff are knowledgeable about residents' medical care	Clinical care	+3**	-1*	+1	+2
Toileting	Assistance with toileting needs	Activities of daily living	0	+3	0	+2

[a]This column presents card rankings on the Q sort grid for each factor array. For example, 'Assistance with meals' was ranked at +4 for Factor/Viewpoint 2, signifying a high priority. Comparatively, this card was ranked at 0 for Factor/Viewpoint 3, suggesting that this is neither a high nor low priority.

* Distinguishing statement at $p<0.05$

** Distinguishing statement at $p<0.01$

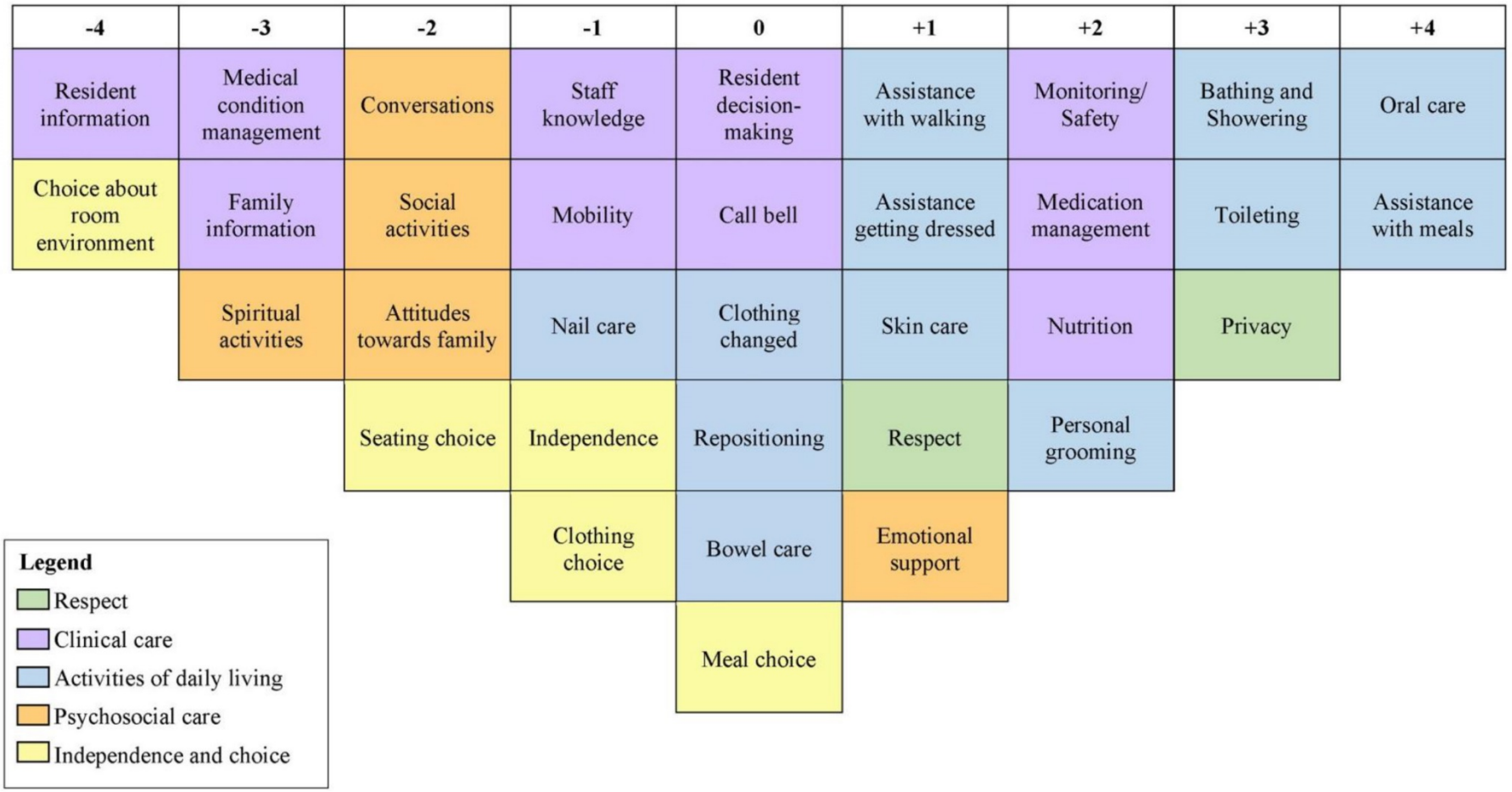
Consensus statements at $p>0.05$ are bolded

Additional file 3: Visual representation of the factor array for Factor 1

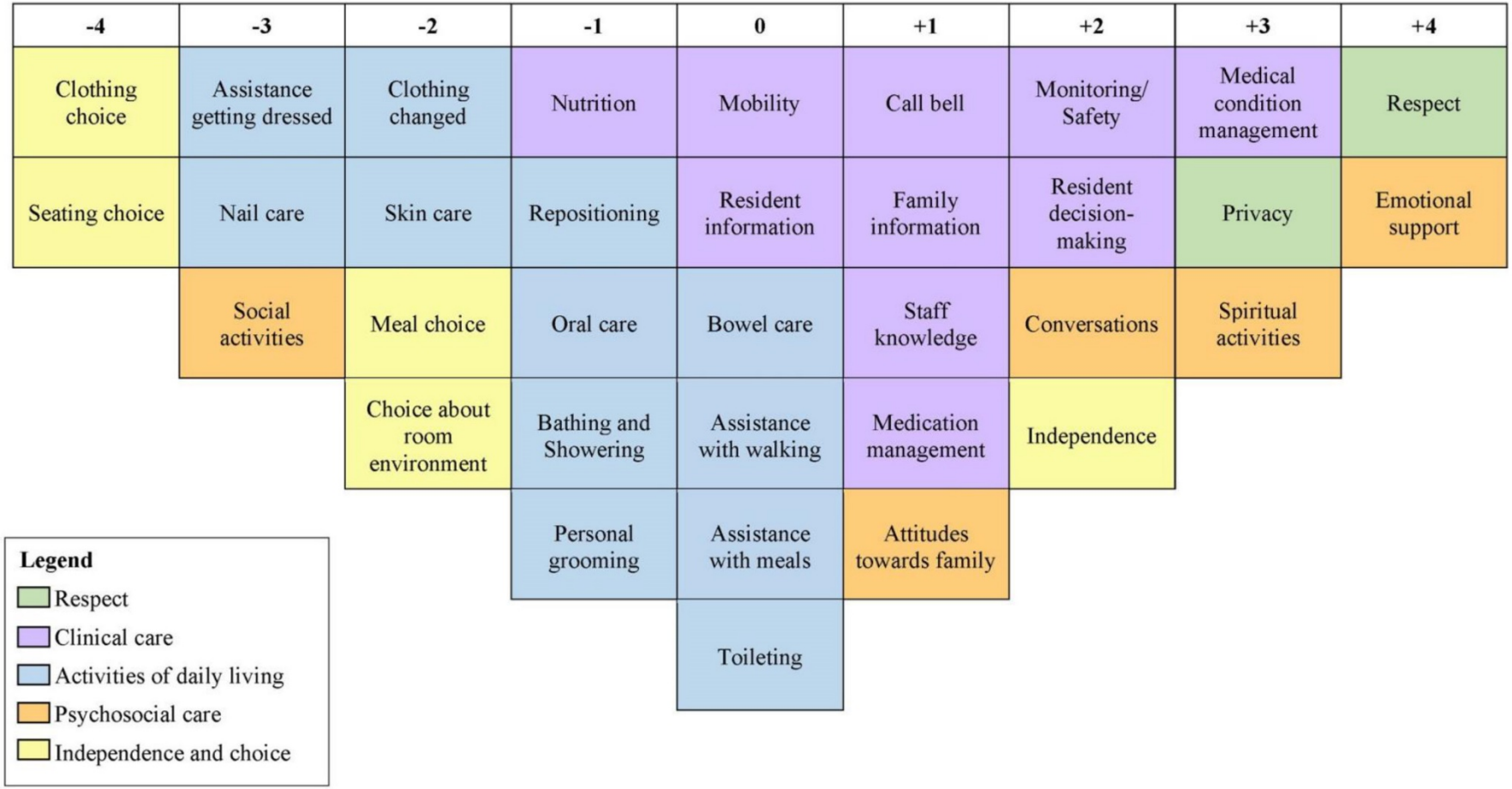
-4	-3	-2	-1	0	+1	+2	+3	+4
Seating choice	Clothing changed	Conversations	Mobility	Repositioning	Family information	Call bell	Medical condition management	Monitoring/ Safety
Choice about room environment	Nail care	Social activities	Personal grooming	Oral care	Resident decision-making	Bathing and Showering	Staff knowledge	Medication management
	Spiritual activities	Meal choice	Assistance getting dressed	Skin care	Nutrition	Respect	Resident information	
		Clothing choice	Emotional support	Assistance with walking	Bowel care	Privacy		
			Independence	Toileting	Assistance with meals			
				Attitudes towards family				

Legend
- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

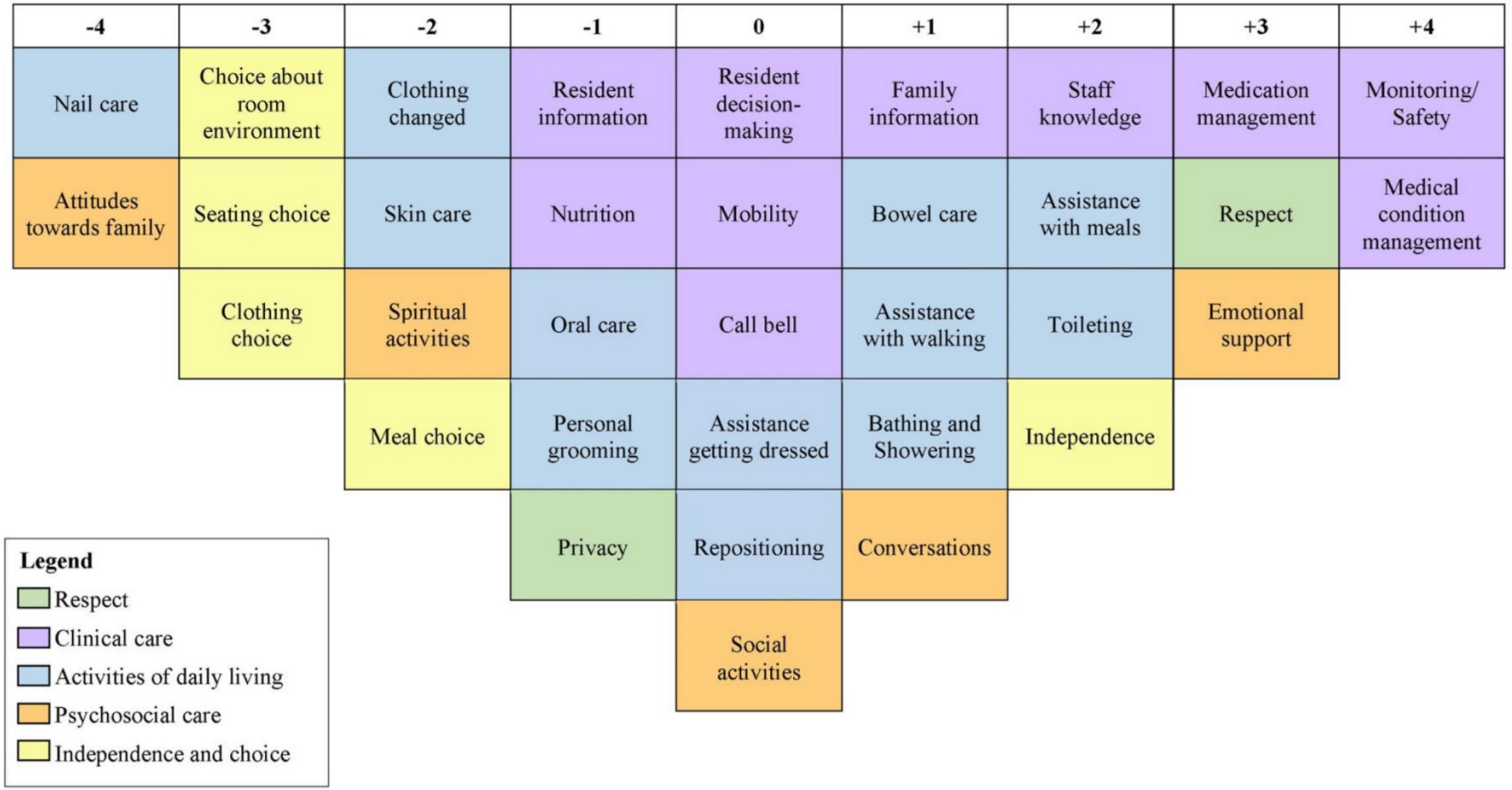
Additional file 4: Visual representation of the factor array for Factor 2

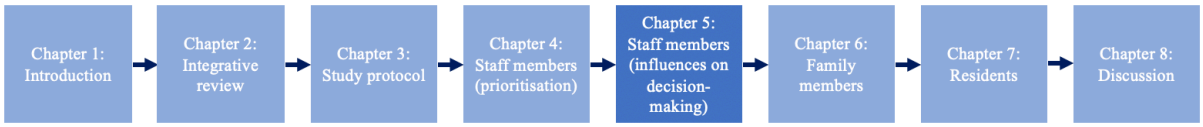


Additional file 5: Visual representation of the factor array for Factor 3



Additional file 6: Visual representation of the factor array for Factor 4.





CHAPTER 5: INFLUENCES ON STAFF MEMBERS' PRIORITISATION DECISIONS

5.1. Overview of Chapter 5

Chapter 5 is the second chapter in this thesis to explore staff members' perspectives on prioritisation. Building on the work presented in Chapter 4, which described how staff members prioritised a set of care elements, this chapter takes a deeper look at how staff members make prioritisation decisions. This chapter comprises a study that investigated the context in which prioritisation dilemmas arise and influences on prioritisation decisions. Together, Chapters 4 and 5 answer RQ1: *How is care prioritised by staff members?*

This chapter contains Article IV:

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (Under review) Influences on staff members' prioritisation decisions in residential aged care facilities: A qualitative study. Invited to revise and resubmit to *Qualitative Health Research*.

INFLUENCES ON STAFF MEMBERS' PRIORITISATION DECISIONS IN RESIDENTIAL AGED CARE FACILITIES: A QUALITATIVE STUDY

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ABSTRACT

Residential aged care (RAC) staff frequently make prioritisation decisions to determine which aspects of care are more important and thus attended to first. Care prioritisation can potentially result in substandard care for residents if lower priority tasks are delayed or left undone. This study investigated the contexts in which prioritisation dilemmas arise in RAC and the influences on staff members' prioritisation decision-making. Thirty-two staff members completed a think-aloud task during a prioritisation activity, a demographic questionnaire, a post-sorting interview and a semi-structured interview. This study reports on inductive content analysis of think-aloud and interview data. Staff members prioritised care in response to high workloads, inadequate staffing, unexpected events, and conflicting demands. Decision-making was influenced by perceived role responsibilities, urgency of situations, anticipation of consequences, teamwork and peer-support, residents' needs, balancing residents' safety and independence, and person-centred care. Research implications regarding ageing populations, aged care workforce and residents' independence are outlined.

INTRODUCTION

Prioritisation decision-making

Healthcare workers are continually presented with situations in which they need to make

decisions about the care provided to their clients. Most of these decisions are influenced by some form of evidence-based guidelines or formal training. Prioritisation decisions, however, rely less on formal directives and more on personal judgements. When caring for multiple patients simultaneously, healthcare workers may be faced with prioritisation dilemmas in which they must make decisions about which aspects of their workload are more or less important or urgent (Hendry & Walker, 2004). While some prioritisation decisions may be straight forward (e.g., should I attend to a patient who has fallen and is now unconscious, or should I investigate a rash on another patient first?), others are much more complex (e.g., which patient is more needing of my time?). Some prioritisation decisions will have minimal consequences, some will result in positive outcomes for a patient, and others will result in patient harm (Suhonen et al., 2018).

Ultimately, prioritisation results in the temporal ordering of care tasks so that tasks given a higher priority are attended to before lower priorities (Hendry & Walker, 2004). Lower priority tasks have the potential to be rationed in favour of higher priorities (Hendry & Walker, 2004; Schubert et al., 2007; Suhonen et al., 2018), thus leading to care that is delayed, omitted or left undone; what is known in the healthcare literature as 'missed care' (Kalisch, Landstrom, & Hinshaw, 2009). Missed care is associated with adverse patient outcomes including urinary tract infections, patient falls with injury, and pressure ulcers (Jones, Hamilton, & Murry, 2015; Papastavrou, Andreou, & Efstathiou, 2014; Recio-Saucedo et al., 2018).

Prioritisation in residential aged care settings

Residential aged care (RAC) settings add another layer of complexity to prioritisation decisions due to residents' needs, the nature of care and the composition of the workforce. The majority of older persons who enter a residential aged care facility (RACF) do so as they are no longer able to be cared for in their own home by either themselves or their family. Prioritisation decisions must take into account the complexity of residents' needs which may include multi-morbidities, mobility limitations and risks (e.g., falls), cognitive impairment, frailty, sensory impairments, and a need for assistance with daily living (RACGP, 2019).

Unlike most healthcare settings in which the aim of care is to treat, rehabilitate and discharge, the purpose of RAC is to provide a home-like environment in which to manage conditions and support residents in their final years of life (AIHW, 2018; Falk et al., 2013; Rijnaard et al., 2016). Consequently, the care provided in RACFs is often very different to the care provided in other care settings such as hospitals. In addition to coordinating medical services,

RACFs offer support with daily living (e.g., showering, toileting), domestic services (e.g., laundry and meals), meaningful activities, spiritual care, emotional support, and social interactions (My Aged Care, n.d.; Royal Commission into Aged Care Quality and Safety, 2019). Due to the holistic and long-term nature of RAC, staff members must consider the whole care experience when making prioritisation decisions.

Kalisch et al.'s (2009) Missed Nursing Care Model identified the demand for patient care and allocation of labour resources as two of the antecedents leading to a need to prioritise care. This has implications for care prioritisation in RACFs as the workforce composition differs from that of other healthcare settings in terms of skill-mix and staffing levels. The majority of the workforce in RACFs comprises Care Assistants (otherwise known as Assistants in Nursing, Care Aides or Personal Care Workers), with Registered Nurses making up a smaller proportion of the workforce (Eagar et al., 2019; Willis et al., 2016). While a vital part of the care team, Care Assistants receive less clinical training than Registered Nurses. The ratio of staff to residents is also much lower in RACFs compared to acute care settings, with strong evidence that current staffing levels are unable to address every resident's needs (Ludlow et al., 2019b; Griffiths et al., 2018; Willis et al., 2016). These workforce factors have consequences for care prioritisation as they can increase care demands while reducing staff members' capacity to care for multiple residents simultaneously.

Existing literature

As prioritisation is a precursor to missed care and potential patient harm, it is important to know what influences staff members' prioritisation decisions. Hendry and Walkers' (2004) review of the prioritisation literature identified several influences on prioritisation decisions including nurse expertise, patients' conditions, resource availability, ward organisation, models of care, nurse to patient relationships, and cognitive strategies involved in priority-setting. Healthcare settings included in their review were not specified, but the review appears to focus on hospitals, with no mention of aged care. The authors concluded that there is a lack of empirical work on prioritisation and that further study in this area, across different healthcare settings, is needed. A more recent scoping review by Suhonen et al. (2018) explored the ethical elements in priority-setting in nursing care. The authors found that prioritisation dilemmas were a result of insufficient time to complete tasks, conflicts between administrative duties and direct patient care, unexpected emergencies, the need to attend to different residents' needs simultaneously and various ethical and moral conflicts (e.g., conflict between personal and professional values). While the authors did not place limits on

healthcare settings, the majority of included studies were conducted in hospitals with no study investigating priority-setting in RAC settings.

Turning to RAC settings specifically, an integrative review on unfinished care by Ludlow et al. (2019b) found that only two studies (Nortvedt et al., 2008; Slettebo et al., 2010) have explicitly explored bedside prioritisation in RAC. This refers to the prioritisation of daily routine care as opposed to meso- or macro-level prioritisation (e.g., allocation of resources/funding, access to services), priorities for end-of-life care, research priorities, or the prioritisation of interventions. Both Nortvedt et al. (2008) and Slettebo et al. (2010) reported that inadequate time and high workload pressures lead to the need to prioritise care. The two studies provided examples of prioritisation of care resulting in missed care, particularly when medical care was prioritised over psychosocial aspects of care.

Slettebø et al.'s (2010) research on prioritisation factors in Norwegian nursing homes identified additional contextual constraints that lead to prioritisation dilemmas; for example, prioritising between residents' with equally important needs. These were: inadequate staffing, poor communication and collaboration, a lack of leadership support, and inadequate infrastructure. Nurses' and Physicians' prioritisation decisions were influenced by the severity of residents' illness, residents' age, principle of justice, principle of benevolence and the type of care (e.g., medical needs prioritised over psychosocial needs).

Study rationale

Nortvedt et al. (2008) and Slettebø et al. (2010) both elicited the views of Physicians and Nurses only, despite RAC services encompassing diverse multi-disciplinary workforces. As outlined earlier, the majority of staff members working in RAC are Care Assistants and yet the views of these and other non-clinical staff members, who are directly involved in routine care, remain unknown. The lack of research on prioritisation in RAC settings indicates that a deeper exploration of this issue is warranted. This study forms part of a larger study on care prioritisation (Ludlow et al., 2019a). Our related study of staff members' prioritisation investigated what staff members' priorities were regarding residents' care and how they prioritised care (Ludlow et al., 2020). The current study builds on this research by taking an in-depth look at the contexts that lead to prioritisation dilemmas and the influences on prioritisation-decisions.

Study objective

The objective of this study was to investigate staff members' prioritisation decision-making

regarding the care provided in RACFs. The study has two research questions, namely:

1. In what contexts do prioritisation dilemmas arise in RACFs?
2. What influences staff members' prioritisation decision-making?

METHODS

Study design

The assessment of staff members' prioritisation of care involved a basic demographic questionnaire, a card sorting activity using Q methodology (Brown, 1993; Stephenson, 1993; Watts & Stenner, 2005), a think-aloud task (Charters, 2003), post-sorting interviews (Watts & Stenner, 2005), and semi-structured interviews. Initially, Q factor analysis and inductive content analysis were carried out to identify shared viewpoints on prioritisation. The results of this analysis are reported elsewhere (Ludlow et al., 2020). In this current study, qualitative data from the think-aloud task and interviews underwent additional inductive content analysis to answer the two research questions presented above.

Sample and setting

Five Australian RACFs, managed by a single aged care provider, participated in this study. Three of the facilities were located in the state of New South Wales and two were located in Queensland. The inclusion criteria for participants were as follows: a) current employment at one of the participating facilities, b) routinely providing direct care to residents, c) willing and able to give informed consent. Purposive sampling was used to recruit participants until data saturation was reached, that is, when no new information was presenting in participant responses (Alderson et al., 2018; Ramlo, 2016). Participants were invited to participate in the research via an invitation letter explaining that this research formed part of the lead author's doctoral studies. Invitation letters were delivered face-to-face by the lead researcher or facility manager.

Data collection and analysis

Data collection procedure

As part of the larger research project, participants completed a card sorting activity using Q methodology (see Watts & Stenner [2005, 2012] for a detailed account of Q methodology). This involved prioritising various aspects of care by level of importance. A detailed account of the data collection methods for the card sorting activity is published elsewhere (Ludlow et

al., 2019a). During the card sorting activity, participants were asked to verbalise their thoughts and decision-making through a think-aloud task. This provided insights into the reasons that certain aspects of care were considered more or less important than others. Following the completion of the card sorting activity, participants completed the demographic questionnaire and engaged in post-sorting interviews and semi-structured interviews. The first author (KL) conducted all components of data collection. She has a Bachelor of Psychology with Honours and a Master of Research in Health Innovation. At the time of the data collection, KL was a Research Assistant and PhD Candidate. She is experienced in conducting interviews in RAC settings. No prior relationships existed between participants and the research team. Each study session was recorded and transcribed verbatim. Fieldnotes were taken immediately after study sessions ended.

Interview guides

The post-sorting interviews asked participants about the placement of salient cards (e.g., highest and lowest priorities), cards that participants had a strong reaction to, and cards that participants were indecisive about. This gave participants the opportunity to explain how they made prioritisation decisions and why certain aspects of care were considered more or less important than others. The semi-structured interview questions were designed to collect insights into the experiences of staff members regarding care prioritisation. The interview guide has been previously published elsewhere (Ludlow et al., 2020).

Analysis

Participant transcripts and researcher fieldnotes were imported into NVivo V.12 to assist with the analysis of data. Inductive content analysis was carried out, guided by Elo and Kyngäs (2008). Initially, KL open coded approximately 20% of transcripts. Similar codes were grouped together under 'generic categories' using mind mapping techniques.[33] Similar generic categories were then merged to form higher-order 'main categories'. Fieldnotes aided the interpretation of categories and themes by contextualising participants' responses. A coding framework was developed by KL comprising generic categories, main categories, and participant quotes. KC reviewed and revised the framework, then KL coded the remainder of the transcripts using the framework.

Ethics approval

The study was conducted in accordance with national ethics guidelines (National Health and Medical Research Council, 2007). All participants provided informed written consent. The study was approved by Macquarie University's Human Research Ethics Committee, as well as the Human Research Ethics Committee of the participating aged care organisation.

RESULTS

Table 1: Participant demographics

Age	
18-25	1 (3.1%)
26-35	13 (40.6%)
36-45	7 (21.9%)
46-55	3 (9.4%)
56+	6 (18.8%)
Not disclosed	2 (6.3%)
Sex	
Male	13 (40.6%)
Female	19 (59.4%)
Location	
New South Wales	18 (56.3%)
Queensland	14 (43.8%)
Job position	
Care Assistant	15 (46.9%)
Registered Nurse	8 (25.0%)
Lifestyle and Activities Officer	5 (15.6%)
Pastoral Carer	2 (6.3%)
Facility or Care Manager	2 (6.3%)
Length of employment	
< 2 years	14 (43.8%)
2-3 years, 11 months	8 (25.0%)
4-5 years, 11 months	4 (12.5%)
≥ 6 years	4 (12.5%)
Not disclosed	2 (6.3%)

Three staff members declined the invitation to participate, citing a lack of time, and three additional staff members did not provide a reason for declining the invitation. The analysis

comprised the responses from the 32 participants completing at least one component of the study. Study sessions were commonly conducted in a communal area due to staff members' responsibility to be on the floor during the study, and therefore, residents and other staff members were often present. For some participants, the study was conducted in a quiet lounge area. Total study sessions ranged from 9 minutes to 1 hour, 20 minutes (mean=32.1 minutes, SD=15.56). The shortest study session belonged to the participant who completed the semi-structured interview only.

Participant demographics are presented in Table 1. Reflecting the composition of aged care workforces, most participants were female (n=19, 59.4%) and were employed as Care Assistants (n=15, 46.9%). Participants were aged between 21 and 68 years (median=37 years) and their time employed by the care organisation ranged from 4 months to 14.5 years (median=24 months). Participants were informed via the participant information and consent forms that they could request to review their transcripts if they wanted to. Only one participant requested this and later approved the transcript without corrections.

The context in which prioritisation dilemmas arise

Answering research question 1, prioritisation dilemmas arose when a) workloads were too high for available time, b) staffing levels were inadequate, c) unexpected events occurred, and d) participants were faced with conflicting demands. Participants reported being forced to prioritise care when workload demands outweighed the available time to complete all required care tasks. Participants explained that a busy environment and lack of time often resulted in psychosocial aspects of care being rushed or neglected, for example, having conversations with residents or providing emotional care. Participant 25 (Care Assistant) shared their experience of feeling time-pressured:

"It's just ridiculous when they [management] said spend about 6-8 minutes per resident to shower, get them dressed, whatever, because you have so many people, that you just don't have time, you don't have time to actually talk and engage with them … you go in and you rush it and I feel as if I'm not talking to them much and I feel really bad."

Participants indicated that the main contributor to high workload and time pressures was inadequate staffing levels. They explained that there were not always enough staff to attend to the needs of every resident. Participants speculated that budget constraints restricted hiring of additional staff members, even when they spoke to management about the need for more staff. Participant 5 (Activities and Lifestyle Officer) illustrated that staff members had limited capacity to care for many residents simultaneously:

"Look, unfortunately, working in aged care facilities, a lot of them try to cut down on their budget and the way they do that is by their staff, because that's the most expensive. Now, if you've got 30 residents and two staff members … these staff members are running off their feet, and if one person has an accident or is really ill, they [staff members] can't just leave them to go to the next person. So, it's really important but we've got to be realistic that if there's two staff members and the ratio is just beyond them then they can't do—they can only do what's humanly possible."

Participants who had worked in RAC settings for a long time noted changes in overall resident demographics over time. The complexity of residents' needs was reported to have increased, resulting in greater pressures on staff members to care for residents, as exemplified by the following response from Participant 31 (Pastoral Carer):

"I think it's got to go right up to the government … we need an increase in staff to cope … the increased incidence of dementia, people needing feeding assistance need to be fed, need to be showered, need to be dressed, the needs are just so much greater. For that large and growing slice of the population, better care has to be provided I think and the government need to get on to it straight away."

Participants explained that they had established routines, both formally and informally, that helped them understand which residents needed to be seen first, as well as the preferential ordering of care tasks. Participants indicated that there were enough staff members to meet minimum care requirements when care routines were carried out as predicted; however, the strain of low staffing numbers was evident when unexpected events occurred (e.g., falls, skin tears, issues with residents' behaviour and mood, resident death). Participants explained that unexpected events could disrupt routines, take significant time to manage, and force them to re-prioritise care. The following extract from Participant 8 (Registered Nurse) emphasises this point:

"Every day is not the same day for us. Some days, like it's very small … we can manage everything in time. But some days are not … it's beyond expectations. Some days we [are] having five falls [on the] same day."

Participants encountered situations where high workloads, inadequate staffing levels, and unexpected events ultimately led to conflicting demands. In these instances, participants described needing to prioritise some aspects of care over others, or prioritise the needs of some residents over others. For example, they acknowledged the importance of answering call bells as quickly as possible and within the timeframe mandated by facilities, however, they also said they were often unable to do so because they were in the middle of care provision.

Participants explained that in those situations, they had to hope that another member of staff could attend to the call bell, but that it was not uncommon for multiple bells to ring at once. Participant 25 (Care Assistant) recounted:

"I'm literally running around like a crazy chook, making sure that everyone is all done, like when you shower someone and then someone buzzes, you can't leave a resident in the shower, you know, you have to let it buzz, maybe more than ten minutes, and I think here the rule is five minutes maximum, but what can you do?"

Influences on prioritisation decision-making

Answering research questions 2, inductive content analysis identified seven main categories that influenced prioritisation decisions. These were: perceived role responsibilities, urgency of situations, anticipation of consequences, perceived teamwork and peer-support, residents' care needs, finding the balance between safety and affording residents their independence, and person-centred care and quality of life.

Perceived role responsibilities

Participants' responses suggested that their prioritisation of care was influenced by their perceived role responsibilities, i.e., what activities they were and were not responsible for. Participants expressed the view that that care tasks considered a lower priority were often those outside of their assigned duties. For example, Participant 2 (Care Manager) said:

"Do I care about their [residents'] emotional needs and spiritual needs? Yes, of course. Yes, of course I do. But it's just not part of my job description. It's not clearly stated there, so that's why it's the least of my priorities."

Urgency of situations

Participants spoke about prioritising situations that needed immediate action, for example, 'life or death' scenarios and emergencies. Examples of urgent situations described by participants included rapid declines in residents' physical conditions, strokes, extensive blood loss and severe dehydration or disorientation. Participants explained that their decision-making in real-time, and subsequent actions, could influence whether a resident lived or died. Participant 21 (Activities and Lifestyle Officer) reasoned that some aspects of care were more urgent than others:

"If they don't have a social activity, it's not going to kill them, whereas if their bowels are blocked, it can."

Care tasks that were less urgent such as nail care and personal grooming were often

considered to be a lower priority by participants. Non-urgent tasks were suggested to have less of an impact on residents' health and minimal consequences if not completed, as demonstrated by the following quote from Participant 24 (Care Assistant):

"Every need [is] important for the resident but which one is more important? Which one should be done first and which one can be done second? In terms of that, if you do not put makeup [on] for few hours, that really doesn't harm, but if you don't give the right medicine at the right time, that really harms."

Anticipation of consequences

Participants spoke about taking a proactive approach to care—attempting to prevent harm, injury and infection. In particular, the risk of urinary tract infections from not toileting residents was a frequently mentioned concern for participants. Similarly, if residents were not turned in bed or repositioned then this could lead to pressure sores, infection and hospitalisation. Participants tended to prioritise aspects of care that would have the most adverse impact on residents if not attended to. They described real and hypothetical scenarios in which missing or delaying care led to a chain of adverse events and even fatal consequences, as illustrated by the following quote from Participant 2 (Care Manager):

"Dehydration leads to confusion, confusion leads to [a] fall, and then dehydration can also lead to UTIs, UTIs to getting sick, to death. There's a lot of possible scenarios."

One strategy described by participants to prevent adverse events from occurring was communication with residents. Participants explained that conversations with residents were a way to gauge their physical state, pain level and discomfort, and to identify any health issues. Despite the importance of communication, participants often felt they did not have enough time dedicated to talking with residents, instead trying to incorporate conversations into other routine tasks. With limited time to interact with each resident, Participant 17 (Care Assistant) explained how warning signs could easily be missed:

"If we chat with them [residents], we obviously know more about them so that makes our job easier … But if we don't have time to chat with them, then we miss so many things and that's why I think the chatting is important, but with regarding this facility we don't have much time."

Perceived teamwork and peer-support

Participants expressed that they relied on teamwork and peer-support to complete care activities, especially when faced with unexpected events or emergencies. Staff members would often prioritise care that could only be completed by themselves; for example, documentation of an incident. Lower priority would be given to aspects of care that could be

attended to by someone else. This wasn't always possible however, as participants explained that support wasn't always available. In these instances, care was often delayed or passed on to the next shift during a formal handover. Participant 25 (Care Assistant) spoke about the importance of teamwork and handovers:

"That's when you have a partner with you so if you can't do it you tell them. If they have the time they can do it, otherwise, if we can't do it in that certain time frame we always hand over to the afternoon staff: 'we tried our best, this morning was really busy, we had a few falls or whatever, we couldn't do some of the stuff that we were supposed to do in the morning shift, would you be able to it in the afternoon shift?' I know it's more work but they have more people to help out in the afternoon than in the morning."

Participants described two ways in which formal handovers influenced prioritisation decisions. First, handovers were given at the beginning of each shift which established staff members' routines. Second, handovers ensured that care tasks that could not be carried out during a particular shift were completed by another shift, as illustrated by the following quote from Participant 1 (Registered Nurse):

"So if someone got sick, if someone had a heart attack and we go and see that resident. If something is left, like if I have a scheduled dressing or something, I can hand it over to the afternoon shift. I can do the emergency, I'll do that first."

Residents' care needs

Participants' priorities were also found to be shaped by residents' care needs, inlcuding their level of dependency, need for assistance, risk of injury, or complexity of care. Cognitive impairment was a factor spoken about by many participants as impacting the way they prioritised care, especially for staff members who worked across dementia and non-dementia areas of the facilities. These participants discussed the difficulty they experienced in trying to organise their priorities during the card sorting activity. They said that they would have arranged the cards differently depending on if they were working with residents in a dementia-specific area or not. Participants indicated that the cognitive capacity of residents influenced certain aspects of care more than others, including informing residents about their care, involving residents in making decisions about their care, independence, and offering residents choice about their care. Participant 6 (Activities and Lifestyle Office) spoke about the impact of residents' cognitive function on their ability to make decisions:

"Yes, residents should be involved in their decision-making about their care but often they don't have the cognitive function to make sensible decisions. It is a priority, but it's not only the top one. That's sort of middle of the road. Yes, we like to involve them but what happens if

they've had a stroke and they can't make those decisions for them?"

In some instances, participants revealed that it was certain residents who were prioritised, rather than care tasks. For example, some participants said that they attended to residents who needed two staff members to assist them (two-assist), or residents with a greater need for assistance first, whereas other participants spoke about attending to more independent residents first. Participants explained that this order often depended on the availability of staff to assist with residents who had more complex needs, as demonstrated by the following response from Participant 4 (Care Assistant):

"We start with the 'easy' residents, that's how we call them, and then we finish with the 'not-so-easy', like, let's say we will start with the mobile residents, the ones who can walk, who can move, and then after that we will divide ourselves … then when we finish with the mobile residents, then we will go to the ones with the lifters or two-assists."

Finding the balance between safety and affording residents their independence

Participants described experiences in which they struggled to maintain a balance between keeping residents safe and allowing them their independence, as these two concepts were not always compatible. Staff members perceived safety concerns as barriers to residents' independence. Conversely, affording residents their independence could compromise residents' safety in some instances. The following excerpt from Participant 11 (Registered Nurse) illustrates the delicate balance between safety and independence:

"They're here because they need support, but somehow you need to weigh as well that they are still capable of doing things. If they could do it, if they just need supervision, let them have the feeling that they're still in control … I put the priority that they need to be safe, but if you can allow them to still practice independence with the least amount of risk.

Participants explained that keeping residents safe from harm was vital in RAC settings as older consumers were viewed as vulnerable and at risk of falls, complex injuries and infections. For example, Participant 22 (Care Assistant) explained:

"Residents are at a high risk because of the age and their conditions, whatever it may be, so it's really important to make sure they're kept safe, that the environment is safe."

Participants spoke about prioritising residents' independence in ways that were appropriate for their specific risks. This involved supporting residents to carry out tasks themselves; for example, one participant spoke about standing near residents during showering in case they needed help. Participants also discussed ways in which people with dementia could have

independence in residential living. One participant gave the example of asking residents to pass them a cup, instead of simply taking it themselves. Even though some participants said that they knew they could complete tasks quicker than residents could, they would try to allow residents the time to do things for themselves if they were capable of doing so, as illustrated by this quote from Participant 19 (Pastoral Carer):

"That's important for me, having a sense of independence and an experience of independence because they've already lost so much. They're not in control of so many things in their lives, or their health and so taking from them the right to choose, even the little things, you know, sort of makes them feel less in control of their lives."

Person-centred care and quality of life

Participants spoke about prioritising care in ways that tried to maximise person-centred care and quality of life. This was especially true regarding treating residents with respect, respecting their privacy, providing emotional support, offering residents choices about their care, keeping residents comfortable and happy, and making them feel valued. Participants described trying to find ways to improve residents' quality of life or 'make their day', as demonstrated by the following response from Participant 11 (Registered Nurse):

"That's another thing, just cheering them up. If they go to activities, other things are actually not as important, but if you make them happy, if they are enjoying the activities, if they function the way they want to function, it's important to them."

Participants said that they tried to deliver care in consideration of residents' preferences and schedules where possible. This was especially relevant to residents' preferences for the timing of care; for example, showering, waking up, receiving medication, and going to bed. Participants said that they recognised RACFs as residents' homes and staff members as guests. They also acknowledged residents' lives before coming into a facility—how they liked things done, what they liked to eat, their routines—and tried to work care around these preferences. Participant 8 (Registered Nurse) spoke about how their prioritisation of care was influenced by residents' preferences:

"If they refuse … medications in the morning, we're happy to come back again because … we want to them to feel like it's their home and that it's their choice to have whether this meal or that meal, this time they want to have personal hygiene care, that time—it's always their priorities. And we always prioritise tasks according to them."

Participants were found to prioritise care based on how they would want to be treated if they were the ones receiving care in a facility, or how they would want their loved one to be treated. They often related their priorities to imagined or real scenarios involving their

parents, grandparents or themselves. The following response from Participant 6 (Activities and Lifestyle Officer) demonstrates how prioritisation of residents' care could be influenced by staff members own preferences:

"I think they [residents] should have a choice about what they wear. When I get out of bed I like to put on my favourite foundation, garments and my favourite undies and my favourite shirt, depending on the weather or where I'm going or who I'm seeing. You know, I think they should have choice."

DISCUSSION

This study built on our previous work (Ludlow et al., 2020) that demonstrated what aspects of care staff members prioritise and how they prioritise residents' care, by investigating the context in which prioritisation dilemmas arise, as well as influences on prioritisation decision-making. Answering research questions 1, and aligning with previous research (Hendry & Walker, 2004; Nortvedt et al., 2008; Slettebo et al., 2010; Suhonen et al., 2018), staff members described prioritising care when workloads were too high for available time, there were inadequate staffing levels, unexpected events occurred, and conflicting demands presented. Answering research uestion 2, influences on staff-members' prioritisation decisions were found to be multi-faceted and included perceived role responsibilities; urgency of situations; anticipation of consequences; perceived teamwork and peer-support; residents' care needs; balancing residents' safety with their independence; and person-centred care and quality of life The research findings have implications for policy and practice in terms of population ageing, aged care workforces and person-centred care.

Population ageing

Supporting previous research (Hendry & Walker, 2004; Pedersen et al., 2008; Slettebo et al., 2010; Suhonen et al., 2018), participants' prioritisation of care was found to be partially influenced by residents' needs. Some participants recognised that the needs of residents as a group had changed over time; increasing in severity and complexity, particularly in relation to mobility and cognitive impairment. The world's population is increasing as well as ageing, with those over 65 years old being the fastest growing age group (United Nations, 2017). As people age, so does their risk of age-related conditions, multi-morbidity and disability (Jaul & Barron, 2017; Salive, 2013; United Nations, 2017). One prominent concern for aged care systems is the rising incidence of cognitive impairment. The World Health Organization estimates the prevalence of people with dementia worldwide to be 50 million, with a

projected increase to 82 million in 2030 and 152 million in 2050 (WHO, 2019). In Australia, the prevalence of dementia is expected to more than double by 2058 (Dementia Australia, 2020). As populations age and their needs change, there will be a greater number of people who require support from the aged care sector. This is reflected in the steady increase in the number of Australians using RAC, and aged care services on the whole, between 2008-2018 (AIHW, 2019). As populations age and resident acuity increases, the situations in which care staff are required to prioritise care, and subsequently omit or delay what they deemed to be lower priority aspects of care, are likely to become more frequent. This additional pressure on care staff to make tough prioritisation decisions will be particularly challenging if changes in population demographics are not met with increased resources.

Aged care workforces

Inadequate staffing was found to be one of the major contributors to prioritisation dilemmas, and subsequent missed care. This was particularly relevant to participants' experiences of unexpected events or conflicting demands. In these situations, staff members were required to prioritise care and decide which activities needed to be completed first and which residents should be attended to before others. The findings from our study align with Slettebø et al. (2010), which identified inadequate staffing in nursing homes as a contributor to prioritisation dilemmas, Griffith et al.'s (2018) review of hospital staffing levels in which low nurse staffing was significantly associated with missed care, and Ludlow et al.'s (2019b) systematic review on unfinished care in RAC settings which found that the most commonly reported factor associated with missed or rationed care was inadequate staffing levels.

This study has implications for policymakers in terms of minimum staffing legislation, as it suggests that inadequate staffing levels force staff members to prioritise care, which can then lead to care being delayed or left undone. In Australia, Aged Care Standards specify that aged care workforces need to be "sufficient" and "skilled" (ACQSC, 2019), however, no further definitions or guidance is provided. Furthermore, only one Australian state (Queensland) (Queensland Parliament, 2019) has any form of government mandated staffing levels in RACFs. The latest annual report from the Australian Nursing and Midwife Federation found that the greatest concern for aged care staff (n=2,775) was not having adequate staffing levels to meet residents' basic care needs (91% of respondents), followed by not having adequate staffing levels to care for residents with high care needs (82.5% of respondents) (ANMF, 2019). Our study has similar implications for countries lacking clear guidelines on staffing levels, for example, the UK, whose guidelines specify that a "sufficient" number of

"qualified, competent, skilled and experienced staff" are required (Care Quality Commission, 2014), or countries that do not enforce recommended staffing ratios, including, New Zealand (Eagar et al., 2019; New Zealand Nurses Organisation, 2017) or Norway (Harrington et al., 2012).

Another influence on staff members' prioritisation was their perceived role responsibilities, where care activities considered outside the scope of assigned duties were often considered a lower priority. Similar findings were described by Pederson et al. (2008) as tasks considered "more peripheral" or "less necessary" were sometimes left undone and believed to be the responsibility of other staff members. Kalisch termed this "it's not my job syndrome" (Kalisch, 2006, 2011). Participants in our study indicated that prioritisation of care led to a division of labour between different professions. Similar divisions have been found in Canadian long-term care facilities (Daly & Szebehely, 2012; Syed et al., 2016). Although our research implies that prioritisation of care based on perceived role responsibility may lead to some aspects of care being neglected, further research is needed to assess the relationship between role responsibilities, labour division and missed care.

Participants discussed the importance of formal handovers in preventing missed care. This finding is supported by Tou et al. (2019), who found that missed handovers were the main cause of missed care in their study of 10 Taiwanese long-term care facilities. Participants in our study reported prioritising care based on whether they could hand over tasks to other team members, particularly those on a later shift. Relying on handovers often resulted in delayed care as opposed to omitted care. Teamwork was also found to reduce the pressures placed on individual staff members as they could rely on others to attend to lower priority tasks that they did not have enough time to complete. Research on relationship between teamwork and missed care in hospital settings in the United States of America (Kalisch & Lee, 2010, 2012) and Australia (Chapman et al., 2017) show that stronger teamwork is associated with lower levels of missed care. Similar studies are required to determine the relationship between teamwork and missed care in RAC.

Person-centred care and residents' independence

Participants were found to deliver care in ways that promoted person-centred care and quality of life. This included offering residents choices about their care, considering residents' preferences, and promoting residents' independence where appropriate. This finding appears to be at odds with our previous research (Ludlow et al., 2020) that demonstrated that person-centred aspects of care are often low priorities for staff members. The current study explains

however, that while participants do in fact value person-centred care and recognise its importance, person-centred care often conflicts with staff members' other care priorities. This potentially explains why person-centred care was previously found to be a low priority for staff members. This conflict between priorities was especially true in terms of balancing residents' independence with their safety needs. Previous literature has documented similar tensions between risk and autonomy (Evans et al., 2018; Lawrence & Murray, 2010; Woolford et al., 2020), particularly regarding the care of older persons with dementia. In their study of persons with dementia and vision loss, Lawrence and Murray (2010) found that care professionals across healthcare settings prioritised both independence and safety. However, interviews revealed that insufficient time, resources and expertise could lead to an 'overcautious' approach where risk reduction was prioritised over consumers' independence. Evans et al. (2018) investigated how care home managers negotiated conflict between the safety of environments and residents' autonomy, specifically for residents with dementia. Overall, participants exhibited a strong focus on risk management. Three areas in which there was tension between safety and autonomy were identified. These were: the physical environment, preservation of dignity, and the individual versus the group.

Our research showed that staff members tried to mitigate the challenge of balancing safety and independence by assessing residents' capabilities, needs, preferences and risks on an individual basis. In line with previous studies (Attree, 2001; Hillcoat-Nallétamby, 2014; Paddock et al., 2018), our research suggested that: a) independence means different things for different residents, b) many residents can maintain some degree of independence in RAC, and c) a one-size-fits-all approach to safety and independence is often inappropriate.

Strengths and limitations

One of the main strengths of this study was the exploration of prioritisation decision-making both in real-time and retrospectively. During the think-aloud task, participants verbalised their thought processes as they made decisions about the level of importance of each care element. The post-sorting interviews gave participants the opportunity to reflect on their decision-making, i.e., why certain aspects of care were a higher priority. The semi-structured interviews provided insights into participants' routine work practices as well as their previous experiences of care prioritisation. Each of these methods were limited by self-report. To more accurately capture how prioritisation of care occurs on the frontlines when staff members are faced with time pressures and conflicting demands, observational studies are warranted.

Another strength of the study was the variety of occupations included in the participant

sample. Building on previous studies of care prioritisation in RACFs (Nortvedt et al., 2008; Slettebo et al., 2010), which focused on the views of Nurses and Physicians, this study encompassed a range of clinical and non-clinical staff members. Research investigating the priorities of other stakeholders, for example, visiting general practitioners, allied health professionals and volunteers could provide novel insights into care prioritisation from the perspectives of non-permanent staff members.

The study setting comprised facilities managed by a single aged care provider which was a limitation of the study. In order to reduce the influence of context, five facilities were recruited to participate in the study. These sites varied in their size, location and amenities.

CONCLUSIONS

This study elicited the perspectives and experiences of a range of clinical and non-clinical staff members regarding care prioritisation. Staff members were found to prioritise care in response to high workloads, inadequate staffing, unexpected events, and conflicting demands. Seven influences on prioritisation were revealed, namely, perceived role responsibilities; urgency of situations; anticipation of consequences; perceived teamwork and peer-support; residents' care needs; balancing residents' safety with their independence; and person-centred care and quality of life. This research identified several areas in which care prioritisation may lead to missed care; for example, those tasks considered outside the scope of assigned duties, and person-centred care, particularly when this conflicted with perceived safety risks. Our research suggests that in order to better support staff members, reduce their need to prioritise care, and ultimately prevent missed care, the following should be considered: clear and explicit staffing guidelines, promotion of teamwork, integrated role responsibilities, and individualised approaches to affording residents' their independence.

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The authors declare that there are no conflicts of interest.

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SUPPLEMENTARY MATERIAL

Consolidated Criteria for Reporting Qualitative Research (COREQ): A 32-item checklist for interviews and focus groups

No	Item	Guide questions/description	Corresponding page number
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	Page 7
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	Page 7
3.	Occupation	What was their occupation at the time of the study?	Page 7
4.	Gender	Was the researcher male or female?	N/A
5.	Experience and training	What experience or training did the researcher have?	Page 7
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Page 7

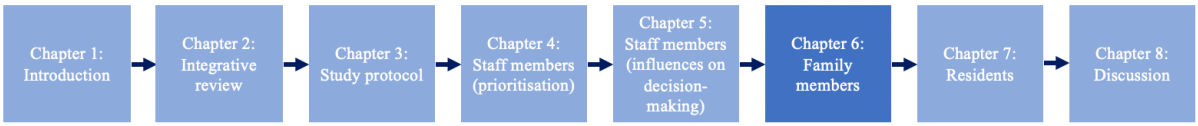
No	Item	Guide questions/description	Corresponding page number
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? e.*g. personal goals, reasons for doing the research*	Page 6
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. *Bias, assumptions, reasons and interests in the research topic*	Page 6
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? *e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	Pages 7-8
Participant selection			
10.	Sampling	How were participants selected? *e.g. purposive, convenience, consecutive, snowball*	Page 6
11.	Method of approach	How were participants approached? e.*g. face-to-face, telephone, mail, email*	Page 6
12.	Sample size	How many participants were in the study?	Page 8

No	Item	Guide questions/description	Corresponding page number
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	Page 8
Setting			
14.	Setting of data collection	Where was the data collected? e.*g. home, clinic, workplace*	Page 8
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Page 8
16.	Description of sample	What are the important characteristics of the sample? *e.g. demographic data, date*	Page 9
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Page 7
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page 7
20.	Field notes	Were field notes made during and/or after the interview or focus group?	Page 7

No	Item	Guide questions/description	Corresponding page number
21.	Duration	What was the duration of the interviews or focus group?	Page 8
22.	Data saturation	Was data saturation discussed?	Page 6
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	Page 9
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	Page 7
25.	Description of the coding tree	Did authors provide a description of the coding tree?	N/A
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Pages 7-8
27.	Software	What software, if applicable, was used to manage the data?	Page 7
28.	Participant checking	Did participants provide feedback on the findings?	N/A
Reporting			

No	Item	Guide questions/description	Corresponding page number
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.*g.* *participant number*	Pages 10-18
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Pages 19-21
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Pages 10-18
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	N/A

Checklist developed by: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-357.



CHAPTER 6: FAMILY MEMBERS' PRIORITISATION OF CARE

6.1. Overview of Chapter 6

Chapter 6 answers RQ2: *How is care prioritised by family members?* As we have seen, family members have an integral role in residents' care.[67,68] While residents' relatives are considered 'informal' caregivers, in that they are not formally employed as care providers, they are also considered 'consumers' as they engage with RAC systems on behalf of residents. To-date, studies of prioritisation in RAC settings have solely looked at staff members' perspectives. This chapter presents the first study to investigate family members' prioritisation of care in RAC.

This chapter contains Article V:

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V., Braithwaite, J. (2020) Family members' prioritisation of care in residential aged care facilities: A case for individualised care. *Journal of Clinical Nursing*, first published: 30 May. doi: 10.1111/jocn.15352

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ORIGINAL ARTICLE

Journal of Clinical Nursing WILEY

Family members' prioritisation of care in residential aged care facilities: A case for individualised care

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Abstract

Objectives: To investigate family members' prioritisation of care in residential aged care facilities (RACFs).

Introduction and background: Family members are often involved in the care of their older relatives even after these relatives transit to a RACF. Understanding family members' priorities regarding care (i.e., what is most important to them) can provide valuable insights into how to better meet residents' needs.

Design: A multisite mixed-methods study comprising qualitative methods and Q methodology. The qualitative component of the study was guided by the COREQ checklist.

Methods: Participants comprised 27 family members of residents living in one of five participating Australian RACFs. Participants rank-ordered 34 cards, each representing an aspect of care, on a predefined grid from "Least important" (−4) to "Most important" (+4). Participants also engaged in a think-aloud task, demographic questionnaire, post-sorting interview and semi-structured interview. Q data were analysed using inverted factor techniques to identify factors that each represent a portion of shared meaning. Factors were interpreted as viewpoints using data from the think-aloud task and interviews. These data were further analysed using inductive content analysis to reveal influences on prioritisation decision-making.

Results: Three distinct viewpoints were identified through Q methodology: prioritisation of residents' physical needs, maintaining residents' independence, and human connection. Inductive content analysis revealed four influences on prioritisation decision-making: residents' capabilities and support requirements, unmet needs, family bridging the gaps, and family knowledge of residents.

Conclusions: The study indicated that to meet residents' needs and family members' priorities, individualised approaches to care are warranted. It also demonstrated the vital role family members play in residents' care when needs are not fully met.

Relevance to Clinical Practice: Strategies to improve individualised care in clinical practice include flexibility of routines, supporting family members' involvement in care, workforce training focused on family–staff communication, and safer staffing ratios.

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KEYWORDS
aged care, caregiver burden, carers, decision-making, family-centred care, nursing homes, older people, patient-centred care, qualitative approaches, residential homes

1 | INTRODUCTION

1.1 | Family members' involvement in care

Family members often have significant involvement in the care of older people. "Care" may refer to household tasks (e.g., grocery shopping), self-care, supervision and mobility (e.g., showering), emotional and social support (e.g., companionship), health and medical care (e.g., medication management), advocacy and care coordination (e.g., making appointments) and surrogacy (e.g., handling financial matters) (Committee on Family Caregiving for Older Adult et al., 2016). For many family members, involvement in care continues after an older person has transitioned from living at home to living in a residential aged care facility (RACF), although the nature of this involvement may change (Gladstone, Dupuis, & Wexler, 2006). Family members engage in a variety of care-related activities within residential aged care settings, including overseeing care, seeking information about care, acting as representatives for residents, providing human connection, delivering hands-on care and sharing personal knowledge about residents to improve care (Bern-Klug & Forbes-Thompson, 2008).

1.2 | Family-centred care

Family-centred care entails forming collaborative partnerships between healthcare professional and families and involving family members in care planning and decision-making (Kokorelias, Gignac, Naglie, & Cameron, 2019). Family-centred care is particularly important in the care provided to vulnerable populations, such as those living in RACFs. Residents may be unable to express their own care preferences due to various communication challenges (Forsgren, Skott, Hartelius, & Saldert, 2016). The perspectives of family members therefore become crucial to facilitating appropriate and high-quality care.

1.3 | Prioritisation of care in RACFs

In an ideal world, residents would have all of their needs met, all of the time, to the highest standard. However, we know from reports, research studies and media investigations that this does not always happen (Ludlow, Churruca, Mumford, et al., 2019; Meagher, Cortis, Charlesworth, & Taylor, 2019; The Royal Commission into Aged Care Quality & Safety, 2019). RACFs are pressurised, complex systems trying to deliver care to a complex population of people, with limited resources (Australian Nursing & Midwifery Federation, 2019). When workloads are too high for available resources, staff members must prioritise the care they provide by making decisions about what aspects of care are most important or urgent (Hendry & Walker, 2004). Prioritisation of care can result in lower priority care activities being rationed (traded off in favour of higher priorities) (Schubert, Glass, Clarke, et al., 2008) or missed (left undone, omitted or delayed) (Kalisch, Landstrom, & Hinshaw, 2009).

What does this paper contribute to the wider global clinical community?

- This study demonstrated that family members play an important role in bridging the gaps in care when residents' needs are not fully met.
- The ways in which family members prioritised care indicated that improvement efforts should focus on promoting more individualised approaches to care provision.
- Based on the research findings, we present several strategies for enhancing individualised care, applicable to international residential aged care contexts.

2 | BACKGROUND

Studies of prioritisation and associated concepts in residential aged care settings (e.g., missed or rationed care) have primarily focused on the views of staff members, particularly nurses and care assistants (Ludlow, Churruca, Mumford, et al., 2019). This is a justifiable focus as staff members are on the frontlines providing direct care to residents. However, in order to meet the needs of residents and the expectations of family members, it is also important to understand how family members prioritise the care residents receive. Research shows that family members often act as advocates for residents and, in some instances, directly deliver care in RACFs (Gaugler, 2005; Puurveen, Baumbusch, & Gandhi, 2018).

2.1 | Objectives

The objective of this study was to investigate family members' prioritisation of care in RACFs. The study had three research questions:

1. What are family members' priorities regarding the care provided to their relative living in a RACF?
2. How do family members of residents living in RACFs prioritise care?

3. What influences family members' prioritisation decision-making?

This study formed part of a larger research project investigating the prioritisation of care in RACFs from the perspectives of different stakeholders (Ludlow, Churruca, Ellis, Mumford, & Braithwaite, 2019).

3 | METHODS

3.1 | Study design

The study design was a multisite mixed-methods study. Research Questions 1 and 2 were answered using Q methodology. Research Question 3 was answered using qualitative methods, guided by the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist (Appendix S2).

3.1.1 | Q methodology

Q methodology is an approach that involves the integration of qualitative and quantitative techniques to identify and understand distinct viewpoints on a particular topic (Brown, 1993; Stephenson, 1993; Watts & Stenner, 2005). Q methodology involves a card sorting activity and Q factor analysis. Card sorting requires participants to order a set of cards (Q sort deck) onto a forced-distribution grid (Q sort grid), according to a condition of instruction (Watts & Stenner, 2012a). The completed card sorting patterns (Q sorts) are then analysed using by-person inverted factor analysis techniques (Watts & Stenner, 2007). The purpose of this analysis is to identify groups of highly correlated Q sorts, known as "factors," which represent shared meaning between participants (Watts & Stenner, 2012c, 2012d). Factors are then interpreted as distinct viewpoints (Watts & Stenner, 2012b).

Q methodology was selected as an appropriate method to assess prioritisation as the forced-distribution Q sort grid requires participants to rank aspects of care by level of importance in relation to other aspects of care, using a gestalt approach (Watts & Stenner, 2005). Q methodology is a fully integrated mixed design (Schoonenboom & Johnson, 2017), allowing for quantitative identification of unique factors, while using rich qualitative data to interpret the viewpoint represented by each factor.

3.2 | Sample and setting

The study setting was five RACFs, managed by a single not-for-profit aged care provider. Individual sites were recruited from the Australian states of New South Wales and Queensland. Purposive sampling, a common convention of Q methodology, was used to recruit participants. Family members of residents living in the RACFs were invited to participate in the study via email and hard copy invitations from facility management, as well as advertisement posters placed on RACF noticeboards and in elevators. The invitation letters and advertisement posters outlined that the research was being conducted as part of KL's PhD. The purpose of Q methodology is to identify a range of distinct viewpoints on a particular topic. Because Q does not make generalisations about the prevalence of these viewpoints at a population level (Watts & Stenner, 2012a), unlike survey methods, large numbers of participants are not necessary or recommended. The accepted guideline for participant sample sizes of Q studies is that the number of participants (P set) should be less than the number of data items (cards) (Watts & Stenner, 2012a). In this study, participants were recruited until data saturation was achieved, that is when no new information was presenting, while following the P set guideline. No prior relationships existed between the researcher and participants.

3.3 | Ethics approval and informed consent

The study was developed in accordance with the Australian National Health and Medical Research Council's (2007) guidelines. It was approved by Macquarie University's Human Research Ethics Committee and the Human Research Ethics Committee of the participating organisation. Informed consent was obtained from all participants.

3.4 | Materials

Materials included a Q sort deck, Q sort grid, post-sorting questions, demographic questionnaire and semi-structured interview questions. The Q sort deck consisted of 34 magnetic cards, each focusing on a different aspect of care provided in RACFs. Each card comprised a statement, representative image and real-world examples. The Q sort deck was the same as used in our related study exploring staff members' prioritisation of care (Ludlow, Churruca, Ellis, Mumford, & Braithwaite, 2020). Statements were slightly modified for relevance to family members (see Appendix S1A). The Q sort grid comprised a predefined forced-distribution grid ranked from "Least important" (−4) to "Most important" (+4). Figure 1 presents an example of a completed Q sort on the Q sort grid.

Post-sorting interviews focused on the placement of salient cards (e.g., at the highest and lowest ranks), and any aspects of care that participants felt were not represented by the Q sort deck (Watts & Stenner, 2005). Details of the demographic questionnaire and the semi-structured interview guide are published elsewhere (Ludlow et al., 2020).

3.5 | Data collection procedure

Participants first sorted the Q sort deck into three piles: "most important," "somewhat important" and "least important." They then

used these piles to sort the cards on the Q sort grid using the following instruction: "Sort the cards from what is 'Least important' (−4) to you, to what is 'Most important' (+4) to you, in terms of the care provided to your family member (resident)." Concurrent to the card sorting activity, participants were asked to verbalise their thoughts and decision-making processes through a think-aloud task (Charters, 2003). Participants were given the opportunity to reflect on their completed Q sort and make any changes to produce a final Q sort. The post-sorting interviews were then administered, followed by the demographic questionnaire and semi-structured interviews. KL, a PhD candidate and research assistant, conducted the card sorting activity and interviews. KL is experienced in interviewing techniques, particularly within residential aged care settings.

Family members who were unable to participate in the study face-to-face were given the opportunity to complete the Q sorting activity, demographic questionnaire and post-sorting interview online using VQMethod, a program designed for Q methodology research (Nazariadli, 2018). Family members opting to complete the study online did not participate in the think-aloud task, and semi-structured interviews were conducted over the phone. Collected data included audio recordings study sessions (transcribed verbatim), VQMethod outputs, retrospective researcher fieldnotes and photographs/screenshots of completed Q sorts.

3.6 | Analysis: Q methodology (Research Questions 1 and 2)

Participants' Q sorts were analysed using Q factor analysis techniques, specifically, centroid factor analysis and varimax rotation using PQMethod V.2.35 (Schmolck, 2018). On the guidance of Watts and Stenner (2012d), and due to the exploratory nature of the research, varimax rotation was selected because it is better suited to inductive approaches, compared to by-hand rotation which would be more appropriate for a deductive analysis. The retention of factors was based on the following criteria: the factor solution accounts for the greatest amount of variance explained while maximising the number of Q sorts significantly loading on (i.e., correlating with) a single factor (factor loading ≥ 0.45, $p < .01$); each factor has an eigenvalue greater than 1; and two or more Q sorts significantly load on a factor (Watts & Stenner, 2012c).

Factors were interpreted as viewpoints and given a representative label using qualitative data and PQMethod outputs which were organised into crib sheets (Watts & Stenner, 2012b) for each viewpoint (i.e., factor). Crib sheets included the following:

- Distinguishing statements: cards ranked significantly differently by participants loading on a particular factor compared to participants loading on other factors.

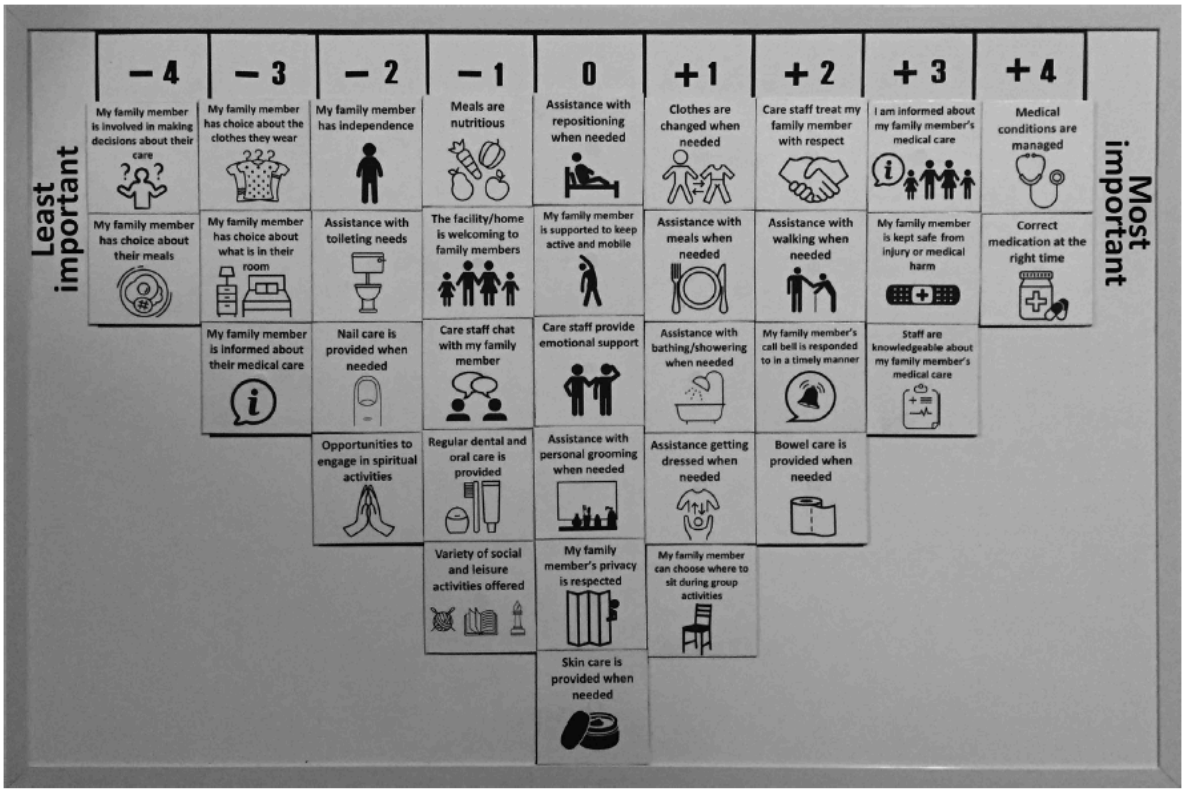

FIGURE 1 Example of a completed Q sort

TABLE 1 Participant demographics

	n	%
Participant (family member) age (years)		
<50	1	3.7
50–59	8	29.6
60–69	13	48.1
70–79	4	14.8
80+	1	3.7
Sex		
Male	2	7.4
Female	25	92.6
Relationship to resident		
Daughter	21	77.8
Other (daughter-in-law, stepdaughter, niece, sister, son, brother)	6	22.2
Resident age (years)		
<80	3	11.1
80–89	9	33.3
90–99	13	48.1
100+	2	7.4
RACF location		
New South Wales	6	22.2
Queensland	21	77.8

- Consensus statements: cards that did not significantly distinguish between any pair of factors (i.e., were ranked similarly across factors).
- Factor arrays: a representative or composite Q sort of each factor, calculated as a weighted average of Q sorts loading on that factor (Watts & Stenner, 2012d). Factor arrays were initially presented as a numerical ranking for each card, corresponding to its location on the Q sort grid (−4 to +4) (see Appendix S1A). These rankings were used to create visual representations of the factor arrays (see Appendices B, C and D). A colour-coded system was then applied to the visual representations in order to classify cards as either clinical care, assistance with daily living, psychosocial care, independence and choice, or respect.
- Research fieldnotes and qualitative data from the think-aloud task and interviews were used to assist the interpretation of factors. These data were organised using NVivo V.12 (QSR International Pty Ltd, 2020 n.d.).

3.7 | Analysis: Inductive content analysis (Research Question 3)

Data from the think-aloud task and the post-sorting and semi-structured interviews were further analysed using inductive content analysis (Elo & Kyngäs, 2008) to identify influences on prioritisation decision-making. Participant transcripts were imported into NVivo V.12, and six randomly selected transcripts (22%) were open-coded by KL. Similar codes were grouped together under "generic categories." Related generic categories were then grouped under higher-order "main categories." An analytic frameworkoutlining main category labels, main category descriptions, generic categories and example quotes was developed by KL and refined through discussions with KC. KL then applied the analytic framework to the remaining transcripts.

4 | RESULTS

Data were collected August–December 2018. Twenty-seven family members participated in the study (see Table 1 for demographics). Four additional participants agreed to participate in the study and then informally withdrew before signing the consent forms. Three of the participants did not provide reasons for withdrawal, and one participant withdrew due to unavailability. Thirteen participants completed the study face-to-face at one of the participating facilities. The majority of participants completed the study with only the researcher present. One participant requested to have a friend present during the study, and another participant completed the study in the presence of their mother (a resident). The other 14 participants completed the study online followed by a telephone interview.

Family member participants were aged 46–81 years (median = 61.0, *SD* = 7.1). The majority of participants were daughters (*n* = 21, 77.8%) in their 60s (*n* = 13, 48.1%) caring for a parent in their 90s (*n* = 13, 48.1%). Residents of participants were aged between 58–101 (median = 90.0, *SD* = 10.3) and had been living in one of the participating facilities for between one month to nine years (median = 24 months, *SD* = 23.1).

4.1 | Family members' priorities and prioritisation of care

Originally a four-factor solution, accounting for 58% of study variance and representing 26 Q sorts, satisfied the inclusion criteria. After consideration of significant correlations between some of the factors, and exploration of the participant transcripts, factor arrays and crib sheets, a three-factor solution was deemed more appropriate. This solution accounted for 54% of the variance and represented all 27 Q sorts, meaning that every Q sort significantly loaded on only one factor, with no Q sort significantly loading on more than one factor. Although factors 1 and 3 were significantly correlated at 0.62, the analysis revealed that three distinct viewpoints were represented. These viewpoints were named: Prioritisation of residents' physical needs; Maintaining residents' independence; and Human connection.

Presented below are narrative interpretations of each of the three viewpoints. Card names are displayed in quotations, followed by the ranking on the Q sort grid in brackets according to the factor arrays. Single and double asterisks signify distinguishing statements at $p < .05$ and $p < .01$, respectively.

4.1.1 | Viewpoint 1: Prioritisation of residents' physical needs

Viewpoint 1 represented 13 Q sorts and accounted for 25% of study variance. Participants loading on Viewpoint 1 prioritised residents' physical needs, including both medical needs and needs related to activities of daily living (Appendix S1B). The "Call bell" card (+3**) was a distinguishing statement for this viewpoint. Some participants explained that their residents rarely used their call bells, so when they did use them, it was likely to be for an important reason. Other participants expressed that their residents rang their call bells more frequently, often because they needed help quickly, especially in relation to "Toileting" (+3). This point was illustrated by the following quote from Participant 1:

> And the thing that upsets him the most is having to wait so long to go [to the toilet] … He'll say to me 'Darling, I was yelling 'help', and no one came', and he gets really angry.

Participants described their residents as being highly dependent and explained that they were living in a RACF because they needed some form of help with basic care. For some participants, this dependency was due to their residents' cognitive impairment. Other participants explained that their residents were mentally alert but had physical dependences (e.g., needing assistance with toileting) or limited mobility (e.g., wheelchair users). Consequently, these participants often considered "Independence" (−3*) a low priority, conceptualising it as physical independence; for example, Participant 12 said:

> She virtually can't have much independence now, because she can't move and she's dependent on people. I'd love her to be more independent, get up and do what she wants to, because it would just be wonderful, but she can't do it. So that's why I've rated it [low], because of her circumstances.

Participants loading on Viewpoint 1 considered interactional and psychosocial aspects of care, including "Conversations" (−1**), "Emotional support" (−2**), "Social activities" (−2**) and "Spiritual activities" (−3**), as lower priorities. Justification for these prioritisation decisions included residents' lack of interest in social activities, that residents were not religious or that spirituality was a private matter rather than something that needed to be addressed by the care organisation. Residents' choices about their care were also ranked as lower priorities by family members, who explained that these aspects of care were generally not important to residents themselves; residents were described as being indifferent.

Some participants explained that choice-related cards were lower priorities because residents were often unable to make appropriate choices about their care, especially those with cognitive impairment. This perspective extended to residents' involvement in their medical care. Participants explained that it was important to them that residents were informed about their medical care ("Resident information"; −1*) and were involved in decision-making ("Residents decision-making"; 0**); however, this was not always the best course of action, and therefore, these cards were ranked in the middle of the Q grid. It was more important to them that they were informed about residents' care ("Family information"; +2). This is exemplified by Participant 14's response:

> Even though she may not recall all of it, I think it's important to explain it … She perhaps needs the simple version and we need the more detailed version.

4.1.2 | Viewpoint 2: Maintaining residents' independence

Viewpoint 2 represented eight Q sorts and accounted for 18% of study variance. Participants loading on this viewpoint described their residents as independent. Some participants said that their residents had early stages of dementia but were still capable of looking after their basic needs. Participants explained that their residents were living in RACFs because they needed monitoring of their medical needs (e.g., medication management, +4), as opposed to assistance with their care. There was a clear divide between clinical care and activities of daily living, with cards related to clinical care occupying the highest five ranks of the Q sort grid, and activities of daily living occupying the lowest four ranks (Appendix S1C).

Independence and choice cards were grouped together in the middle of the factor array for Viewpoint 2. Of particular importance was the "Independence" card (+1**), which was a distinguishing statement. There were two justifications for its prioritisation. The first was that for some participants, their residents were self-sufficient. They were mentally alert and physically capable of attending to their own care, as illustrated by Participant 22:

> Mum is quite independent. She's got good mobility, she's got good sight, good hearing, good coordination. She can dress and feed herself. Most of the time she showers herself.

The second justification was that for some participants, their residents were losing their independence, particularly those experiencing cognitive decline. It was important to these family members that residents' independence was maintained for as long as possible. Participants wanted their residents to have control over their lives, where it was appropriate for them to do so. One suggested way of achieving this was to allow residents to complete tasks on their own, with supervision, support or reminders from staff members. Participants explained that their prioritisation of independence was a reflection of their residents' own desires to "hold on" to their independence and do things for themselves, as they had done their whole lives. Participant 19 spoke about the

impact that transitioning into residential care had on their father's independence:

> Dad's greatest sadness/regret is the loss of independence that accompanied his move into care. For that reason, I would like to ensure he has some agency in determining his own future care needs for as long as he is capable.

Psychosocial care cards were also grouped in the middle of the factor array for Viewpoint 2. For some participants, their residents were described as very social and emotionally engaged people, who thrived off interactions with others and social/emotional connections. These participants explained that social activities and emotional support could enhance residents' mood and overall health. For other participants, their residents refrained from participating in the social aspect of the facilities. Participants expressed that they wished that their residents were more social in order to avoid isolation. For example, Participant 16 acknowledged the need for emotional support and companionship, especially during times of transition into a RACFs, but knew that their father would be reluctant to ask for this support:

> He might not know how to ask for help and also he might feel incredibly lost,especially in ... that first six months when a person goes into aged care, they need that emotional support to explore what it could be instead.

4.1.3 | Viewpoint 3: Human connection

Viewpoint 3 represented six Q sorts and accounted for 11% of study variance. For five of the participants loading on Viewpoint 3, their residents had dementia or cognitive decline. Residents were described as needing medical care, as well as assistance with activities of daily living. Viewpoint 3 represented family members who prioritised human connection and interaction for their residents (see Appendix S1D). "Emotional support" (+3**), "Conversations" (+2*) and "Social activities" (+2**) were all ranked significantly higher in Viewpoint 3 than in Viewpoints 1 and 2. Participants spoke about residents' confusion and inabilities to understand what was happening around them. Participants also spoke about the difficulties their residents had in verbally communicating with staff, with one resident unable to speak English and most other residents experiencing cognitive impairment. For these reasons, human connection, emotional support, patience and kindness were viewed by participants as important aspects of the care experience. When discussing emotional support, Participant 9 portrayed the impact of staff members' approach to delivering care on residents' well-being:

> Particularly if they smile and they're kind to her. It just puts her totally at ease, but if the opposite happens, and I'm not saying that it does, but if people are abrupt, in a hurry, and don't have time and so on, she becomes resistant and confused, frightened and so on.

"Social activities" (+2**) were said to be especially important for residents with cognitive impairment. Participants explained that social activities kept residents stimulated, entertained and engaged and that organised activities helped prevent residents from becoming agitated. For other participants, human connection was achieved through residents' interactions with staff members, as their residents were not interested in organised social activities.

"Spiritual activities" (−4**) was one of the two lowest ranked priorities, with participants explaining that their residents were either not religious, or they did not understand the concept of organised spiritual care, including religious services. "Independence" (−1*) was another low priority for participants. Participants reasoned that their residents could not be truly independent due to cognitive impairment, medical conditions and mobility problems. Some participants acknowledged that their residents believed that they had more independence than they actually had, which often had adverse outcomes, as demonstrated by Participant 2's response:

> It's what sent her here—why she couldn't remain independent. And she's still becoming more and more needy when she can't go to the bathroom by herself; she thinks she can, but she tried the other day and it was a disaster.

Viewpoint 2 was also characterised by the low prioritisation of "Resident decision-making" (−3**) and "Resident information" (−4**). In terms of information sharing, participants indicated that residents lacked awareness and understanding of what was going on around them. In terms of decision-making, participants indicated that their residents were not always capable of making rational decisions. This inability to make appropriate decisions extended to nonmedical aspects of care, reflected by the low priority of choice-related cards. Participant 9 explained that offering choice sometimes had negative outcomes for residents:

> Because given a choice, Mum wouldn't even understand ... so she needs to be directed, and things like 'what clothes are you going to wear today?' well that would just cause her more confusion. 'What would you like to do today?', well that doesn't mean a thing to her.

4.1.4 | Consensus statements

Cards that were ranked similarly across the viewpoints ($p > .01$) were "Nail care" and "Clothing choice" (low priorities), "Attitudes towards family" (neutral priority) and "Medical condition management" and

"Respect" (high priorities). Additionally, "Medication management" was a high priority consensus statement at $p > .05$.

Respect was a prominent focus throughout participants' responses. For some participants, this was because their residents had previously encountered disrespect from staff member (e.g., use of elderspeak or baby talk). Participants explained that respect was a part of basic care and something that residents deserved. Participant 16 reasoned that respect was a high priority because if staff members were respecting residents, then other needs would be met:

> With respect, everything else follows. Staff will notice things and adjust things and take action to honour that person.

4.1.5 | Additional aspects of care

Box 1 provides a list of additional aspects of care suggested by participants.

1 | Box Additional aspects of care

- Assistance with technology (e.g., phones)
- Cleanliness of rooms*
- Communication* (between staff members, between staff and residents, and between staff and family)
- Companionship
- Encouragement with daily activities (e.g., showering)
- Family involvement in care/decision-making
- Formal meetings between family and staff members
- Having enough staff to assist
- Interesting and appropriate food*
- Laundry services
- Podiatry services
- Quality/variety of entertainment and social activities*
- Recognition of family members as informal carers
- Sleep (e.g., sleeping problems for those with dementia)
- Social outings (outside of the facility)*
- Staff qualifications/training/education/professional development*
- Staff reliability/competence*
- Tailored physiotherapy/appropriate exercises/encouragement of physical fitness*
- Taking care of personal belongings
- Visitors (family and friends)

*Discussed by multiple participants

4.2 | Influences on prioritisation decision-making

Inductive content analysis revealed four main categories, or influences on family members' prioritisation decisions. These were labelled: residents' capabilities and support requirements, unmet needs, family bridging the gaps and family knowledge of residents.

4.2.1 | Residents' capabilities and support requirements

Whether a resident was physically or cognitively able to complete care tasks independently shaped the way participants prioritised care. Some explained that their residents were very independent and able to attend to most care needs themselves. Subsequently, some cards, particularly those related to activities of daily living, were described as not relevant and were considered a low priority. Participants with more independent residents often acknowledged that although these aspects of care were not relevant "yet" or "at the moment," their residents' independence and ability to do things for themselves was likely to change in the future, and as such, their priorities might change. The following response from Participant 26 provides an example of one participant's recognition that t sister's needs will change over time:

> Because she's so independent, but the time will come when she won't be able to cut her nails … that's why I put that here [lower on the Q sort grid], because at the moment she doesn't need that, she doesn't need help.

A different subset of participants noted that their residents were continuing to lose independence since entering a RACF. They tended to prioritise care in ways that would maintain their residents' independence where appropriate. They also described being conflicted between wanting independence for their residents and realising that their residents needed assistance. As Participant 27 described:

> He didn't want anyone helping him with his showers and he's trying to keep that bit of independence, but of course he needed help … He's trying to get up before they [staff members] come, to do so much before they get there. He shouldn't be doing that honestly; he probably needs that help or assistance, but he doesn't want to be putting them out.

Family members with more dependent residents were found to prioritise aspects of care that their residents were unable to provide for themselves. The main types of dependency participants spoke about were needing assistance with basic care (e.g., walking or showering); difficulties or an inability to make decisions, remember things or understand information (e.g., residents with cognitive decline or dementia); and having health conditions that impacted functioning or needed management (e.g., Parkinson's disease or diabetes). The following response from Participant 12 demonstrated how dependent their resident was on staff members:

> She's dependent on the staff, so she calls to empty her bladder, void her bowels, get changed, come in the morning to shower her, get her set up for the day, clean teeth … and of course she needs assistance with walking because otherwise she's stuck. It's critical that her medical conditions are managed.

4.2.2 | Unmet needs

Participants' prioritisation decisions were also influenced by their experiences of unmet needs. When justifying why something was a high priority, participants shared personal anecdotes in which their residents' needs were not met, either currently or in the past, or when care had been inappropriate, delayed or left undone. Participants speculated about various reasons for this inadequate care. First, they explained that there were insufficient staffing levels to attend to residents' needs. Participants acknowledged that staff members were under pressure to provide care; for example, Participant 4 said:

> But I would say higher up in the organisation they are really starving these facilities of staffing. If I had to put money into anything, they'd need to have more staff. And it would make the world of difference. They'd [staff members] be much happier … because they are really just absolutely run off their feet.

Second, participants expressed concerns over the length of training staff members received, particularly care assistants. They spoke about care staff not having enough experience or knowledge about how to properly care for residents. Third, participants observed that staff members tended to focus on routines and checklists, which did not allow them the flexibility to "think outside the box." The following quote from Participant 10 demonstrated this point:

> In her interactions with carers, they're not listening to her and they're very rule-bound and they are very used to just doing things in a certain way. They can't think around things … and come up with solutions.

Although a small number of participants described negative experiences with individual staff members, most participants explained that they did not blame staff for inadequate care, but rather saw this as a wider systems problem. This was particularly true concerning staffing levels and training. In some instances, participants expressed sympathy for staff members and commended them for their patience and the quality of care they provided. For example, Participant 3 described the high standard of care that staff members provided to their resident, even when staff were experiencing time pressures:

> They were gentle, they didn't feel rushed, even if they were rushed, they didn't show that. And they just went the extra mile.

4.2.3 | Family bridging the gaps

In terms of more serious offences, such as inappropriate staff behaviours, rude staff members and medication errors, participants communicated that their concerns were taken seriously by management and that in most instances, satisfactory action had been taken to resolve these problems. However, for more minor lapses in care, family members revealed that they were the ones bridging the gaps. This responsibility was found to influence participants' prioritisation of care. Some family members were accepting of their role and, as a result, ranked certain aspects of care as a lower priority because they attended to these tasks themselves. For example, nail care was consistently ranked as a lower priority, as Participant 3 explained:

> 'Nail care is provided when needed', well I do it because I find it's not done.

Other participants ranked certain aspects of care that they provided as a high priority. They expressed frustration, anger or despair at having to attend to residents' unmet needs. Participant 6 spoke about the various things they had to advocate for on behalf of their mother:

> It shouldn't be up to me. Everything that you see that she has, has been because I've pushed for it.

These participants described the high involvement they had had in residents' care, which included frequently visiting residents, providing care otherwise not provided, advocating for their residents, asking for things their residents needed and following up with staff members or management regarding unresolved issues. When discussing an incident which left their mother distressed, Participant 5 said the following:

> I think it's a good example of the consequences of institutional behaviour towards a person, that if I wasn't there to advocate for her, [it] would have had profound effects on her.

4.2.4 | Family knowledge of residents

Participants' knowledge of residents' priorities, wants, needs and personalities were found to influence prioritisation decisions. Often, participants spoke about their own priorities and their residents' priorities as if they were synonymous; they would explain why something was a priority for their residents, rather than referring to their own priorities. As Participant 7 explained, there was often a strong alignment between family and resident priorities:

> My priorities are what her priorities are.

Participants provided examples of how their knowledge enhanced residents' care and provided unique insights. For example, when asked why Participant 25 ranked "Choice about clothes" as a higher priority, they provided an anecdote in which having knowledge about their mother had been important to her care:

> My mother has worn a broach all her life … and I told the nurses at my mum's facility that when she's not wearing a broach, get a doctor—there's a problem. And that's exactly what's happened in the last two weeks, she hasn't had a broach on and I knew then that she's got a problem.

Residents' life histories, that is, their lives before coming into a RACF, shaped the way participants prioritised care. They placed importance on things that they knew had been important to their residents in the past, or what was important to them now because of the life they had lived. For many participants, this is why the "Respect" card was a priority, as exemplified Participant 15's response:

> [She] had always dressed well and been quite a pristine person … even though she won't know that about herself anymore. It's for the family members that she not look like a clown … respect says that she is allowed to spend the rest of the time she has with us dressed how she's always liked to be dressed … it's our projection of what we would like her to maintain even though she can't maintain it herself.

5 | DISCUSSION

5.1 | Summary of findings

This study investigated family members' prioritisation of care in RACFs. Answering Research Questions 1 and 2, "What do family members prioritise?" and "How do family members prioritise care?", three distinct viewpoints were identified: prioritisation of residents' physical needs, maintaining residents' independence, and human connection. Answering Research Question 3, "What influences family members' prioritisation decision-making?", four influences were identified: residents' capabilities and support requirements, unmet needs, family bridging the gaps, and family knowledge of residents.

The findings suggest that in order to provide high-quality care that meets the needs of residents, as well as the priorities of family members, care providers need to be flexible in their approaches to care delivery, encouraging more individualised care. Our study also emphasises the important role that family have in addressing unmet needs, delivering care, advocating for residents and contributing knowledge about residents.

5.2 | Individualised care

Individualised care, otherwise known as tailored or personalised care, is a person-centred approach in which a staff member "knows the resident as a unique individual, and tailors nursing care to a patient's experiences …; behaviours …; feelings; and perceptions" (Radwin & Alster, 2002, p.62). Family members were found to prioritise care based on residents' individual capabilities, needs and experiences of unmet needs. Our study suggests that in order to meet the priorities of family members, a one-size-fits-all approach to residents' care is inadequate and inappropriate. This finding is further reinforced by participants' discussions of additional aspects of care not represented by the Q sort deck. Specifically, participants spoke about the need for appropriate and tailored exercise activities, food choices and social activities, as they reported that current options did not always meet the individual needs of residents.

The study findings align with Attree (2001) in which "good quality care" was considered by acute care patients and their families to occur when patients were acknowledged as individuals and care was patient-focused. Conversely, care described as "not so good, could be improved" was typically care that was routine, standard, unrelated to need and nonindividualised. Many of the negative care experiences reported by participants in our study have been previously identified as barriers to high-quality and individualised care in RACFs, including formal routines, group approaches to care, staffing and time pressures and communication breakdowns (Curry, Porter, Michalski, & Gruman, 2000; Murphy, 2007; Suhonen, Valimaki, & Leino-Kilpi, 2002).

5.3 | The role of family members in residential aged care

Individualised care is achieved when staff members learn about individual residents' needs, capabilities, histories, experiences and preferences, and then use this information to tailor the care they deliver (Radwin & Alster, 2002). Our findings illustrate that family members can be a valuable source of this information, and by sharing their knowledge, they can indirectly facilitate individualised care. Family members were found to also have a more direct role in care, addressing residents' current or past experiences of unmet needs. One identified strategy was advocating for residents by speaking to staff members or management and actively following up on issues until they were resolved. When unmet needs persisted, family members explained that they often bridged the gaps in care. For some family members, this meant visiting residents on a daily basis to provide the care they required. Previous studies have found that family members provide more "hands-on assistance" and visit more often when they are concerned or dissatisfied with the standard of care residents are receiving (Gladstone et al., 2006; Roberts, Ishler, & Adams, 2018).

Our findings support Gaugler's (2005) review of family involvement in residential long-term care which found that family members continue to be involved in residents' lives after moving into a RACF in direct and indirect ways. Direct ways included visiting, advocacy and provision of personal (e.g., grooming and nail care), instrumental (e.g., doing shopping and laundry) and psychosocial care (e.g., emotional support). Indirect ways included sharing knowledge about residents to facilitate staff members' delivery of individualised care. A more recent review (Puurveen et al., 2018) demonstrated similar ways in which family members were involved in care, including hands-on assistance (e.g., nail care and bathing), managing and/or overseeing care (e.g., doing laundry and advocating for residents), socioemotional support (e.g., sharing knowledge with staff members about residents' preferences, values and life histories) and contributing to the community (e.g., helping other residents at mealtimes). The authors note that family members were motivated to be involved in residents' care when there were apparent gaps in care quality (Puurveen et al., 2018).

5.4 | Implications for policy and practice

By offering insights into what family members prioritise, how they prioritise care and what influences their prioritisation decisions, this study identified potential areas for improving residents' care. Building on previous research (Murphy, 2007; Nakrem, Vinsnes, Harkless, Paulsen, & Seim, 2013), the rigidity of routines was viewed by family members as impeding the provision of individualised care, with participants advocating for more person-centred care. One potential strategy to address the stringency of routines in RACFs is the promotion of flexible routines that allow residents more choices about their care, including timing of care activities (Murphy, 2007; Rytterstrom, Unosson, & Arman, 2011). Ryan and McKenna (2015) found that family members of residents in nursing homes recognised the need for established care routines but expressed that greater flexibility would be beneficial to residents. Formalised routines ensure that standards are met and care is delivered in timely, coordinated ways (Rytterstrom et al., 2011); however, our findings suggest that in order to deliver individualised care, opportunities for adaptability of routines should be built into residential aged care systems.

Inadequate staffing levels were also identified as a barrier to meeting residents' care needs. Participants in our study explained that staff members were often under pressure due to staffing shortages, and as a result, they were not always able to provide adequate and timely care. Low staffing ratios are not only a barrier to individualised care, but are also the most commonly reported factor associated with missed and delayed care in RACFs (Ludlow, Churruca, Mumford, et al., 2019). Our research has implications for current political and societal debates on appropriate staffing levels in RACFs, in countries such as Australia (Australian Nursing & Midwifery Federation, 2019; The Royal Commission into Aged Care Quality & Safety, 2019; Willis et al., 2016), the UK (Borneo, Helm, & Russell, 2017; Slawson, 2017) and the USA (Harrington, Schnelle, McGregor, & Simmons, 2016; Rau, 2018). The study findings suggest that staffing levels need to improve in order to adequately meet residents' needs and family members' expectations.

Family members have detailed knowledge about residents which can be shared with facilities and staff members if open communication channels are established (Bern-Klug & Forbes-Thompson, 2008). Communication problems, including breakdowns in information transfer, were reported by some of the study participants. Previous research has found that although interactions between staff members and family can be positive, communication conflicts and breakdowns are also apparent (Majerovitz, Mollott, & Rudder, 2009; Utley-Smith et al., 2009). Strategies to improve family–staff communication include communication training and workforce policies that encourage family members to become involved in residents' care, where appropriate. Staff members can improve and personalise care for residents by involving family members in care planning, effectively communicating with them, being responsive to their concerns and learning from their knowledge.

When care needs were not being met, family members helped to bridge the gaps in care. Although caregiving for an older person can be rewarding, it has also been associated with negative outcomes including sleep disturbances, isolation, anxiety and depression and financial loss (Commonwealth of Australia, 2019; Metzelthin et al., 2017). The study findings also have implications for residents who do not have family members who regularly visit, provide care or advocate, for residents. Facilities should identify these potentially vulnerable residents and put measures in place to ensure that they do not fall through the cracks of pressurised residential aged care systems. One potential strategy is the use of a buddy system in which vulnerable residents are paired up with a staff member (Sury, Burns, & Brodaty, 2013).

5.5 | Strengths and limitations

It is possible that the study may have been biased towards family members who were more active in residents' care and, as such, had a greater desire to be involved in research. Many participants explained that they visited their resident on a regular basis; for some, this was daily. However, our study also captured the views of family members who lived interstate or were not in frequent contact with their resident. The sample may also have been biased towards family members experiencing specific problems with care provision, agreeing to participate in the study to voice their concerns about negative experiences. While some participants expressed dissatisfaction with care, others said that they had no experiences of unmet needs/priorities and were happy with the care provided by the organisation. Participants who had particular problems they wanted to discuss also offered examples of good care.

Although participating facilities were managed by a single aged care provider, five RACFs across two Australian states were

recruited, thus reducing the effects of organisational context on results. Other strengths of the study include the opportunity for participants to complete the study face-to-face, online and via phone, and the variety of residents who were represented by family member participants. Residents varied in their mobility, cognitive and functional capacities, need for assistance, level of independence and medical conditions. The study found that participants often made prioritisation decisions based on their knowledge of residents' current or past priorities, therefore providing a voice for residents who may be unable to express their own priorities.

While our study has important implications for policy and practice, we are unable to generalise our findings to a wider population, that is, determine the proportion of people who hold certain views at a population level (Watts & Stenner, 2012a). The purpose of Q methodology is to identify distinct viewpoints on a topic of interest. In order to understand how these viewpoints operate in the general population, an adaptation of our findings into a survey (known as a Q2S study) is necessary.

6 | CONCLUSIONS

Family members were found to prioritise care according to residents' individual capabilities and support needs, as well as their experiences of unmet needs. This study revealed that in order to meet family members' priorities, and to provide safe and high-quality care to residents, more individualised approaches to care provision are warranted. Our research also reinforced the vital role family members play in bridging the gaps in care when residents' needs are not fully met.

7 | RELEVANCE TO CLINICAL PRACTICE

Based on the research findings, several strategies to improve clinical practices in RACFs were identified, particularly in terms of enhancing individualised care approaches. These include the promotion of flexible routines, the encouragement of family member involvement in care, the implementation of training interventions targeting family–staff communication, and the enforcement of safer staffing ratios. These strategies are applicable to broader international context as residential care systems in various Western countries face challenges to the provision of individualised care similar to the ones identified in the current study.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

AUTHOR CONTRIBUTIONS

Conceptualisation, design and study lead: KL; study design contribution: KC, VM, LAE, JB; study materials: KL, KC, VM LAE; data collection, analysis and interpretation: KL; interpretation of the three viewpoints: KC, LAE assisted KL; and write-up of draft manuscript: KL. All authors contributed to revisions of subsequent drafts and approved the final submission.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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APPENDICES

Appendix A: Q cards, Q statements, care categories and factor arrays

Card label	Q Statement	Care category	Factor arrays—card rankings		
			Factor 1	Factor 2	Factor 3
Assistance getting dressed	Assistance getting dressed when needed	Activities of daily living	+1**	-1	-1
Assistance with meals	Assistance with meals when needed	Activities of daily living	+1	-3**	+1
Assistance with walking	Assistance with walking when needed	Activities of daily living	-1**	-2**	+1**
Attitudes towards family	**The facility/home is welcoming to family members**	**Psychosocial care**	**0**	**0**	**-1**
Bathing and showering	Assistance with bathing/showering when needed	Activities of daily living	+1	-1**	+2
Bowel care	Bowel care is provided when needed	Activities of daily living	+2	-1**	+1
Call bell	My family member's call bell is responded to in a timely manner	Clinical care	+3**	+1*	+1*
Choice about room environment	My family member has choice about what is in their room	Independence and choice	-4	0*	-2
Clothing changed	Clothes are changed when needed	Activities of daily living	0	-3**	0
Clothing choice	**My family member has choice about the clothes they wear**	**Independence and choice**	**-2**	**-1**	**-2**
Conversations	Care staff chat with my family member	Psychosocial care	-1**	0*	+2*
Emotional support	Care staff provide emotional support	Psychosocial care	-2**	+2**	+4**
Family information	I am informed about my family member's care	Clinical care	+2	+4	0**
Independence	My family member has independence	Independence and choice	-3*	+1**	-1*

Meal choice	My family member has choice about their meals	Independence and choice	0**	+1**	-3**
Medical condition management	**Medical conditions are managed**	**Clinical care**	**+4**	**+3**	**+4**
Medication management	**Correct medication at the right time**	**Clinical care**	**+3**	**+4**	**+3**
Mobility	My family member is supported to keep active and mobile	Clinical care	0*	+1**	-2*
Monitoring/ Safety	My family member is kept safe from injury or medical harm	Clinical care	+4*	+3	+2
Nail care	**Nail care is provided when needed**	**Activities of daily living**	**-3**	**-4**	**-3**
Nutrition	Meals are nutritious	Clinical care	+1	+2	0*
Oral/Dental care	Regular dental and oral care are provided	Activities of daily living	-1	-2**	0
Personal grooming	Assistance with personal grooming when needed	Activities of daily living	-2*	-4**	0*
Privacy	My family member's privacy is respected	Respect	-1	+1*	-1
Repositioning	Assistance with repositioning when needed	Activities of daily living	+1**	-2	-1
Resident decision-making	My family member is involved in making decisions about their care	Clinical care	0**	+2**	-3**
Resident information	My family member is informed about their medical care	Clinical care	-1*	0*	-4**
Respect	**Care staff treat my family member with respect**	**Respect**	**+2**	**+3**	**+3**
Seating choice	My family member can choose where to sit during group activities	Independence and choice	-4**	-1	0

Skin care	Skin care is provided when needed	Activities of daily living	0**	-3	-2
Social activities	Variety of social and leisure activities offered	Psychosocial care	-2**	0**	+2**
Spiritual activities	Opportunities to engage in spiritual activities	Psychosocial care	-3**	0**	+4**
Staff knowledge	Staff are knowledgeable about my family member's medical care	Clinical care	+1	+2*	+1
Toileting	Assistance with toileting needs	Activities of daily living	+3	-2**	+3

* Distinguishing statement at $p<0.05$

** Distinguishing statement at $p<0.01$

Consensus statements at $p>0.05$ are bolded

Appendix B: Visual representation of Factor 1 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Seating choice	Nail care	Personal grooming	Resident information	Resident decision-making	Staff knowledge	Family information	Call bell	Monitoring/ Safety
Choice about room environment	Spiritual activities	Social activities	Oral/Dental care	Mobility	Nutrition	Bowel care	Medication management	Medical condition management
	Independence	Emotional support	Assistance with walking	Skin care	Repositioning	Bathing and Showering	Toileting	
		Clothing choice	Conversations	Clothing changed	Assistance getting dressed	Respect		
			Privacy	Attitudes towards family	Assistance with meals			
				Meal choice				

Appendix C: Visual representation of Factor 2 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Nail care	Clothing changed	Repositioning	Bowel care	Resident information	Call bell	Resident decision-making	Monitoring/ Safety	Family information
Personal grooming	Skin care	Oral/Dental care	Assistance getting dressed	Social activities	Mobility	Staff knowledge	Medical condition management	Medication management
	Assistance with meals	Assistance with walking	Bathing and Showering	Spiritual activities	Independence	Nutrition	Respect	
		Toileting	Seating choice	Attitudes towards family	Meal choice	Emotional support		
			Clothing choice	Conversations	Privacy			
				Choice about room environment				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

Appendix D: Visual representation of Factor 3 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Resident information	Resident decision-making	Mobility	Repositioning	Family information	Call bell	Monitoring/ Safety	Medication management	Medical condition management
Spiritual activities	Nail care	Skin care	Assistance getting dressed	Nutrition	Staff knowledge	Bathing and Showering	Toileting	Emotional support
	Meal choice	Clothing choice	Attitudes towards family	Oral/Dental care	Assistance with walking	Conversations	Respect	
		Choice about room environment	Independence	Personal grooming	Bowel care	Social activities		
			Privacy	Clothing changed	Assistance with meals			
				Seating choice				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

SUPPLEMENTARY FILE 1

Consolidated Criteria for Reporting Qualitative Research (COREQ): A 32-item checklist for interviews and focus groups

No	Item	Guide questions/description	Corresponding page number
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	Page 8
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	Page 8
3.	Occupation	What was their occupation at the time of the study?	Page 8
4.	Gender	Was the researcher male or female?	N/A
5.	Experience and training	What experience or training did the researcher have?	Page 8
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Page 7
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? e.*g. personal goals, reasons for doing the research*	Page 6

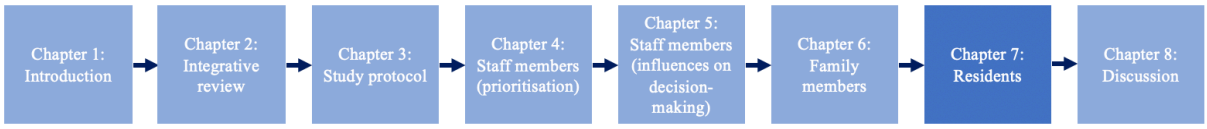
No	Item	Guide questions/description	Corresponding page number
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. *Bias, assumptions, reasons and interests in the research topic*	Page 6
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? *e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	Pages 5-6 and 9-10
Participant selection			
10.	Sampling	How were participants selected? *e.g. purposive, convenience, consecutive, snowball*	Page 6
11.	Method of approach	How were participants approached? e.g. *face-to-face, telephone, mail, email*	Page 6
12.	Sample size	How many participants were in the study?	Page 10
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	Page 10
Setting			

No	Item	Guide questions/description	Corresponding page number
14.	Setting of data collection	Where was the data collected? e.*g. home, clinic, workplace*	Pages 10-11
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Pages 10-11
16.	Description of sample	What are the important characteristics of the sample? *e.g. demographic data, date*	Pages 10-11 and Table 1
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Page 7
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page 8
20.	Field notes	Were field notes made during and/or after the interview or focus group?	Page 8
21.	Duration	What was the duration of the interviews or focus group?	N/A
22.	Data saturation	Was data saturation discussed?	Page 6

No	Item	Guide questions/description	Corresponding page number
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	N/A
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	Page 10
25.	Description of the coding tree	Did authors provide a description of the coding tree?	N/A
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Pages 9-10
27.	Software	What software, if applicable, was used to manage the data?	Page 10
28.	Participant checking	Did participants provide feedback on the findings?	N/A
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. *participant number*	Pages 12-23

No	Item	Guide questions/description	Corresponding page number
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Pages 23-27
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Pages 18-23
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	N/A

Checklist developed by: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-357.



CHAPTER 7: RESIDENTS' PRIORITISATION OF CARE

7.1. Overview of Chapter 7

Chapter 7 answers RQ3: *How is care prioritised by residents?* In line with person-centred care principles,[2] residents should have input regarding what is important to them about their care. While previous studies have looked at residents' preferences,[78-86] i.e., what they want for their care, my integrative review indicated that no study has investigated their care priorities. Understanding priorities, as opposed to preferences, enables greater recognition of the time-pressured, resource-constrained environments that residents live in as prioritisation requires residents to decide which aspects of care are more or less important in relation to all other aspects of care.[16] This chapter addresses this literature gap by presenting the first study to investigate aged care residents' prioritisation of care.

This chapter contains Article VI:

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V. and Braithwaite, J. (Under review) Aged care residents' prioritisation of care: A mixed-methods study. Invited to revise and resubmit to *Health Expectations.*

AGED CARE RESIDENTS' PRIORITISATION OF CARE: A MIXED-METHODS STUDY

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Conflicts of interest

The authors have no conflicts of interest to declare.

Data availability

Data sharing is not applicable to this article.

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ABSTRACT

Background: Eliciting residents' priorities for their care is fundamental to understanding and delivering person-centred care in residential aged care facilities (RACFs). Prioritisation involves ordering different aspects of care in relation to one another by level of importance. By understanding residents' priorities, care can be tailored to residents' needs while considering the practical limitations of RACFs.

Objectives: To investigate aged care residents' prioritisation of care.

Design: A mixed-methods study comprising Q methodology and qualitative methods.

Setting and participants: Thirty-eight residents living in one of five Australian RACFs.

Method: Participants completed a card sorting activity using Q methodology in which they ordered 34 cards, each representing an aspect of care, on a pre-defined grid, by level of importance. Data were analysed using inverted factor analysis to identify factors representing shared viewpoints. Participants also engaged in a think-aloud task, demographic questionnaire, post-sorting interviews and semi-structured interviews. Data from these additional methods were used to interpret viewpoints. These data were additionally analysed via inductive content analysis to identify influences on prioritisation decision-making.

Results: Four viewpoints on care prioritisation were identified through Q methodology: Maintaining a sense of spirituality and self in institutionalised living; Information sharing and family involvement; Self-reliance; and Timely access to staff member support. The inductive analysis revealed four influences on prioritisation decisions: Level of dependency; Dynamic needs; Indifference; and Availability of staff.

Conclusions: Recommendations for providing care that aligns with residents' priorities include: establishing open communication channels with residents, supporting residents' independence, improving meal choice and quality, and enforcing safer staffing ratios.

KEYWORDS

Aged care; Decision-making; Nursing homes; Person-centred care; Priority-setting; Residential Facilities

INTRODUCTION

Person-centred care

In shifting towards more person-centred approaches to care, consumer involvement is increasingly recognised as an essential part of healthcare provision.[1] One of the core elements of person-centred care is acknowledging and respecting consumers' preferences.[2] Ensuring that consumers receive person-centred care is particularly important in residential aged care facilities (RACFs) as contextual barriers have the potential to limit residents' involvement in their care. These barriers include organisational factors such as task-oriented care and rigid routines,[3] resident characteristics including cognitive impairment, communication problems and dependency on others,[4,5] and factors associated with the transition into residential living

(e.g., loss of autonomy).[6] Seeking out residents' preferences for their care is a necessary, albeit sometimes challenging, process in facilitating person-centred care.

Preferences and prioritisation

Self-report tools such as the Preferences for Everyday Living Inventory for NH residents,[7,8] the Resident VIEW[9] and the Minimum Data Set 3.0 Preference Assessment Tool[10,11] have been used to elicit residents' care-related preferences. These types of assessments require residents to rate domains of care by level of importance with no restrictions placed on rankings, i.e., residents can rank every item at the highest level of importance. This is a potential limitation of preference assessment tools, as they do not adequately account for the complex, resource-constrained and often pressurised environments of RACFs.[3,12]

Assessing residents' priorities can overcome this limitation. Prioritisation of care, by definition, requires determinations about the *relative* importance of different aspects of care, in light of, for example, environment, circumstances and the availability of resources. In healthcare services literature, prioritisation refers to ordering care tasks by levels of importance or urgency when available resources are inadequate.[13,14] Although prioritisation is primarily associated with healthcare workers' delivery of care, it is also a relevant concept for resident populations in terms of establishing and understanding their priorities for their care.

Rationale

Studies of care prioritisation in RACFs have predominately focused on healthcare workers' perspectives,[15] and therefore, a knowledge gap exists regarding residents' views. By understanding what residents prioritise and how they do so, policymakers, aged care providers and frontline staff can target improvement efforts to better align with residents' needs and expectations.

Objectives

The objective of this study was to investigate aged care residents' prioritisation of care. The study had three research questions:

1. What are residents' priorities regarding their care?
2. How do residents prioritise care?
3. What influences aged care residents' prioritisation decision-making?

METHODS

Study design

The study was a mixed-methods multi-site study involving Q methodology and qualitative methods. It is part of a larger research project exploring the prioritisation of care in RACFs.[16]

Sample and setting

Participants were residents living at one of five participating RACFs located in the Australian states of Queensland and New South Wales. The facilities were managed by a single provider. Purposive sampling, a common convention of Q methodology, was used to recruit participants. Recruitment was guided by the following inclusion criteria: willingness and ability to provide informed consent; capacity to participate in an English-language interview; and participation in the study would be unlikely to cause physical burden. Facility managers and clinical staff members identified residents who met this inclusion criteria. Participants were invited to participate in the study through invitation letters which outlined that the research formed part of the first author's (KL) doctoral studies.

Ethics approval and informed consent

The study was developed in accordance with national ethics guidelines.[17] It was approved by the Macquarie University Human Research Ethics Committee and the Human Research Ethics Committee of the participating aged care provider. Informed written consent was obtained from all participants.

Materials

Materials for the card sorting activity comprised a set of 34 cards (Q sort deck), each representing an aspect of care, as well as a forced distribution sorting grid (Q sort Grid) on which participants ordered the cards.[18] The Q sort deck was taken from our related studies of staff and family members' prioritisation of care,[16] with slight modifications. The Q sort grid was ranked from Least important (-4) to Most important (+4) (Figure 1). Other study materials included a demographic questionnaire, post-sorting interview questions and semi-structured interview guide (see protocol for details[16]).

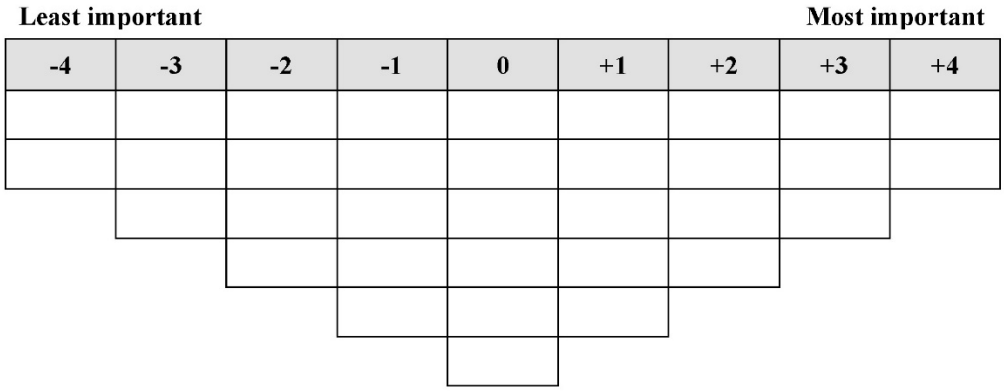

Figure 1: Q sort grid

Data collection procedure

Residents chose to complete the study in either their own private room or a communal area. Participants were first asked to sort the Q sort deck into three piles with regards to their care preferences: Least/less important, Neutral/somewhat important and Most/more important. They then ordered the cards on the Q sort grid from 'least important' to 'most important' in terms of the care they received. During this activity, participants verbalised their decision-making processes by engaging in a think-aloud task.[19,20] Upon completion of the card sorting activity, participants were given the opportunity to adjust their card sorting pattern (Q sort) and were asked post-sorting questions[21] relating to the placement of salient cards (e.g., cards at the lowest and highest ends of the Q sort grid), and whether there were any aspects of care not represented by the Q sort deck. Participants were given the option of continuing onto the demographic questionnaire and semi-structured interview questions immediately after the post-sorting interview or at a later time. KL, an experienced aged care researcher and interviewer, conducted each study session which involved the card sorting activity, think-aloud task, post-sorting interviews, semi-structured interviews and demographic questionnaire. Participants' responses were recorded and transcribed verbatim. Fieldnotes were written immediately after each study session and photographs of participants' final Q sorts were taken.

Analysis: Q methodology (Research Questions 1 and 2)

To answer Research Questions 1 and 2, Q sort data were analysed using established techniques based on inverted factor analysis.[22,23] Specifically, centroid analysis and varimax rotation were used via PQMethod V.2.35.[24] This analysis resulted in the identification of factors that represented shared meaning between participants.[25,26] To determine the number of factors retained, the following criteria were used: the factor solution accounted for the greatest amount of variance explained while maximising the number of Q sorts significantly loading

on (i.e., correlating with) a single factor (factor loading ≥0.48, p <0.01); each factor had an eigenvalue greater than 1; and two or more Q sorts significantly loaded on a factor.[25,27]

PQMethod produced a representative Q sort for each factor, known as a factor array (Appendix A). Factor arrays are calculated as a weighted average of Q sorts loading on to a particular factor.[26] To aid interpretation, numerical factor array rankings were transformed into visual representations and colour-coded in order to classify cards by types of care (Appendices B-E).

Factors were interpreted using participant transcripts, visual representations of factor arrays and crib sheets.[28] Crib sheets summarised cards at ranks +3 and +4, distinguishing statements (cards ranked significantly differently on one factor compared to others), and consensus statements (cards ranked similarly across factors). The interpretation of each factor was developed into a narrative account of the viewpoint it represented.

Analysis: Inductive content analysis (Research Question 3)

Data from the think-aloud activity, post-sorting interviews and semi-structured interviews were analysed using inductive content analysis via NVivo V.12.[29] A random sample of transcripts (16%) were open coded by KL. Guided by Elo and Kyngäs,[30] similar codes were grouped together under 'generic categories'. These were then further refined as 'main categories' which represented influences on prioritisation decision-making. This information was developed into an analytic framework by KL and KC. KL analysed the remaining transcripts using the analytic framework.

RESULTS

Participant demographics

Thirty-eight residents participated in the card sorting activity. Three participants opted out of the semi-structured interviews due to time limitations. Total study session times ranged from 14 minutes to 1 hour and forty minutes (median=40 minutes). Five participants had been interviewed by KL for an unrelated study two years earlier. For the other participants, no prior relationship existed. For 36 participants, the study was administered in participants' private rooms. For three of these participants, their spouse (also a resident), was present. Two participants were interviewed in an activities room with other residents and staff present. Sixteen additional participants were invited to participate in the study but did not take part due to inability to provide informed consent (n=5), unavailability (n=2), illness (n=1), temporary residency at the facility (n=1) or no reason given (n=4).

The majority of participants were female (65.8%), 34.2% had been living in their current RACF for 1-3 years, and 42.1% self-rated their health as 'Good'. Participants' ages ranged from 72-97 years (median=87.6 years), with the majority aged between 85-94 years (60.5%) (Table 1). Participants represented residents with a variety of needs in terms of mobility, dependency, sensory functioning and medical conditions.

Table 1: Participant demographics

	n	%
Age range		
≤ 79	4	10.5
8-84	7	18.4
85-89	9	23.7
90-94	14	36.8
≥ 95	3	8.0
Not disclosed	1	2.6
Sex		
Male	13	34.2
Female	25	65.8
RACF location		
New South Wales	25	65.8
Queensland	13	34.2
Time living in facility		
<1 year	7	18.4
1-3 years (12-35 months)	13	34.2
3-5 years (36-59 months)	6	15.8
5-7 years (60-83 months)	8	21.1
>7 years + (≥ 84 months)	4	10.5
Self-rated health		
Poor	3	7.9
Fair	7	18.4
Good	16	42.1
Very good	11	28.9

Excellent	1	2.6

Four-factor solution

A four-factor solution accounted for 54% of study variance and 31 Q sorts. The other seven Q sorts did not significantly load on any factor. Some of the factors were significantly correlated (Table 2), however, a review of the data indicated that they represented four distinct viewpoints: 1. Maintaining a sense of spirituality and self in institutionalised living, 2. Information sharing and family involvement, 3. Self-reliance, and 4. Timely access to support.

Table 2: Correlations between factors

	Factor 1	**Factor 2**	**Factor 3**	**Factor 4**
Factor 1	1.0000	0.4605	0.6183*	0.6675*
Factor 2	0.4605	1.0000	0.3101	0.5332*
Factor 3	0.6183*	0.3101	1.0000	0.5014*
Factor 4	0.6675*	0.5332*	0.5014*	1.0000

* Significantly correlated at $p<0.01$

Viewpoints

Presented below are narrative accounts of each viewpoint on care prioritisation. Single quotations represent card names, followed by factor array ranking in brackets. Single and double asterisks signify distinguishing statements at $p<0.05$ and $p<0.01$, respectively.

Viewpoint 1: Maintaining a sense of spirituality and self in institutionalised living

Viewpoint 1 accounted for 18% of variance and represented 10 Q sorts. Viewpoint 1 was characterised by the prioritisation of 'Spiritual activities' (+4**) (Appendix B), with most participants discussing the importance of religion in their lives. They valued opportunities to engage in spiritual activities, including the ability to attend on-site daily mass, or walk to a nearby church. Participant 2 said:

"With the Catholic church right next door, that's important to me. That's number one as far as I'm concerned."

Participants described themselves as being highly 'Independent' (+4). They talked about managing their own care, making decisions, and speaking up when their needs were not met. Participants also spoke about the importance of being able to leave the facility when they wanted to. For some, the transition from independent living to a RACF was difficult, particularly in terms of loss of independence and privacy, as illustrated by the following quote from Participant 19:

"If you said to me, what's the hardest thing about coming into care? Loss of independence and privacy would feature high."

Participants were in agreement that 'Privacy' (+3*) was important. Although some said that their privacy was respected, others spoke about sometimes feeling disrespected by staff. The most commonly reported privacy-related problem was staff entering residents' rooms or bathrooms without knocking or waiting for an answer. Participant 15 shared the following:

"Well some of them [staff members], they knock, they push the door and walk in. I told them, 'Don't walk in like that,' I said. 'Sometimes I'm not dressed.' … Once when a fellow did that, I got angry with him. I said, 'don't do this … because I am a woman.'"

The majority of participants loading on this viewpoint expressed dissatisfaction with food in terms of 'Nutrition' (+3**), appropriateness for older adults, taste, texture, the way food was prepared and 'Meal choice' (+2). Participants discussed the difficulties they experienced adjusting to the meals provided in residential care. Participant 25 commented:

"It's been a very important issue since I first came here. I was very disillusioned when I saw the meals and I thought, oh my God, I've eaten beautiful meals all of my life and I've been so aware of nutrition and fresh food and cooking properly, giving the correct meals to my family, and then I come in here and eat rubbish, absolute rubbish, really not very good food."

Viewpoint 2: Information sharing and family involvement

Viewpoint 2 accounted for 17% of study variance and comprised 12 Q sorts. Participants loading on this viewpoint prioritised information sharing, specifically, 'Family information' (+4**) and 'Resident information' (+4) (Appendix C). Residents explained that while they wanted to be informed about their medical care, it was more important that their family members were informed about, and involved in, their care. Participant 37 spoke about the importance of their daughter:

"[My daughter] is everything to me, and she does everything for me, looks after my investments … and she does look after me … She's my decision-maker…"

One explanation for this reliance on family is that residents loading on this viewpoint were dependent on other people for certain aspects of care. This was particularly true in their

prioritisation of 'Bathing/showering' (+2**) and 'Assistance getting dressed' (+1**). Many of the participants described being limited in their 'Mobility' (+1). They spoke about being "wobbly" or prone to falls and as a result, needed wheelchairs, walking frames, assistance with 'Repositioning' (0**) or 'Assistance with walking' (-1). Despite this dependency, participants still valued their 'Independence' (+1), although this was ranked lower in Viewpoint 2 compared to other viewpoints. When asked why independence wasn't ranked higher on the Q sort grid, Participant 8 responded:

"Not the most important because I have to depend on other people to do things now."

Viewpoint 2 was also characterised by the low prioritisation of choice-related cards, for example, 'Seating choice' (-4**), 'Clothing choice' (-3**) and 'Choice about room environment' (-2**). Participants explained that having choice was not a high priority, either because they were satisfied with the degree of choice available, or they were indifferent. Regarding 'Meal choice' (-2), a number of participants explained that this was a low priority because they did not get a lot of choices and they were unhappy with the food. Participant 26 claimed that many residents shared this view:

"...a lot of people don't have a good word for the meals. And I know some of us think you can't expect too much, but I would like to go down to a meal and think, oh, I wonder what they've got today and will I enjoy it?"

Viewpoint 3: Self-reliance

Viewpoint 3 accounted for 8% of study variance and represented five Q sorts. Similar to Viewpoint 1, 'Independence' (+4) was ranked as one of participants' highest priorities (Appendix D). For participants loading on Viewpoint 3, independence was conceptualised as being self-reliant. When care staff were delayed in delivering care, some participants noted that they completed care activities without assistance.

Participants' self-reliance was exemplified by the lower prioritisation of 'Family information' (-1**) and 'Attitudes towards family' (-2**). For some participants, this was because their family members were no longer alive, or did not live close by. Others did not want their family members to be highly involved in their care, as illustrated by Participant 7:

"Everybody feels or thinks that family is very important. Well I don't because they have their own business, they have their own families etc. and I'm just in the way. That's why I came to [the facility] ... so I can unburden them."

Participants communicated a preference for more individual-based leisure activities, for example, reading or doing jigsaw puzzles. This could explain why 'Choice about room

environment' (+3**)' was ranked as one of participants' highest priorities. As Participant 10 explained:

"I do a lot of knitting here [in my room]. I do a lot of reading."

'Privacy' (+2*) was also a high priority, reflected in participants' portrayal of themselves as being private people who liked to spend time alone. For example, Participant 7 stated:

"I like my privacy. I make my own bed and I do everything. They [staff members] don't even come into my room—just to give my medication and all that—but I like being alone…"

Viewpoint 4: Timely access to support

Viewpoint 4 accounted for 11% of study variance and comprised four Q sorts. Participants loading on this viewpoint were characterised by their preference for timely access to support from staff, particularly in terms of clinical support (e.g., 'Medical conditions managed'; +4), 'Call bell' (+4**) and 'Emotional support' (+2) (See Appendix E).

While participants expressed a sense of urgency regarding the need for support, they acknowledged that staff members were often busy and therefore could be delayed in answering call bells. Participant 32 explained why they believed waiting for a call bell response was not appropriate:

"If you ring your bell and it's 10-15 minutes, that's far too long. Because you don't ring your bell unless you want something…"

The importance of having staff member support extended beyond physical care to 'Emotional support' (+2), which was ranked highest in Viewpoint 4. When discussing the importance of emotional support, Participant 38 described a specific incident in which a visiting GP caused emotional distress. The participant expressed appreciation of the support they received from an Assistant in Nursing (AIN) and a Registered Nurse (RN):

"In fact, one of the AINs put in a complaint about her [visiting doctor] not respecting me. I was so upset I was in tears. The RN, she was wonderful."

Viewpoint 4 was also characterised by a lower prioritisation of 'Social activities' (-3**), with participants explaining that they were satisfied with the availability of activities but often preferred to spend time alone, or socialise with their friends/family instead of engaging in organised group activities, as illustrated by Participant 32's response:

"I don't attend many [social activities] as I'm a big reader... I generally just socialise around, talking to people or whatever, but I'm not a 'craft' person or anything like that …"

Consensus statements

Consensus statements that were non-significant at p>0.01 (i.e., cards that did not distinguish between any two factors) included: 'Monitoring/Safety', 'Mobility', 'Respect', 'Oral care' and 'Medical condition management'. The latter two were also non-significant at p>0.05 (Appendix A).

Across the four viewpoints, clinical care, particularly management of residents' medical conditions, was a high priority. Participants explained that their medical conditions often dictated the care that they needed in terms of assistance and medication. For some, medical management was seen the primary reason they lived in a RACF. Participants also communicated that respect was a high priority. When asked why respect was important, Participant 36 said:

"I think we have to realise that every person has dignity. And their dignity is respected and they're not treated like animals or being abused or, you know, yelled at or whatever."

Additional aspects of care

Box 1 outlines additional aspects of care that participants identified as not being well represented by the Q sort deck. Apart from palliative care, all other aspects of care were those that participants felt were inadequate (e.g., not enough staff training), or were related to prior negative experiences (e.g., loss of clothing through laundry services).

Box 1: Additional aspects of care

- Agency staff* (knowledge of care tasks and of residents, and attitudes towards caring)
- Cleanliness* (rooms, bathrooms and kitchen crockery)
- Communication about activities* (e.g., social outings)
- Laundry services and personal care of clothing*
- Maintenance of common areas
- Palliative care
- Personal interests/entertainment (e.g., card games, reading, TV)
- Staff members' ability to communicate in English* (i.e., communication breakdown between staff and residents)
- Staff members who listen to residents
- Staff training/experience/education*
- The taste of food
- The transition to institutional living

* Suggested by multiple participants

Influences on prioritisation decision-making

Across all participants, four influences on prioritisation decision-making were identified. These were labelled: 1. Level of dependency; 2. Dynamic needs; 3. Indifference; and 4. Availability of staff.

Level of dependency

Tasks that could be completed without the assistance of staff members, were often given a lower priority. Common responses included variations of "I do that myself", "I look after myself", "I manage that myself" and "I don't need that". Conversely, activities that required assistance were prioritised. For example, Participant 14 said:

"I need to be showered each morning. Because I can't do it myself. And then they [staff members] assist me to dress."

Regardless of level of assistance needed, participants tended to prioritise 'Independence'. They described wanting to try to "hold onto" their independence for as long as possible, in whatever ways they could. Participant 24 explained how independence can operate in residential living:

"Part of the problem for the old folk who come in here is … they feel they have lost their independence. But even when you have lost your independence and come to a place like this you can still have some independence. I mean, you can close the bloomin' door and do what you like, and choose to go out on the balcony or not go out on the balcony. It's a different kind of independence but it's tremendously important …"

Dynamic needs

Many participants spoke about their transition into residential aged care, including how their needs had changed over time. This transition involved adjusting to food, privacy, routines and room environment (i.e., reduction of living space). Participant 19 explained why room environment was important to them:

"To establish myself because I have not yet called this place home, but I need to have a sense that this room is my place. And so, I needed to have important pictures on the wall, photos, I needed to have a bookcase, I needed things that made this room my own."

Participants would often use phrases such as "not yet", "at this stage" and "at the moment", indicating that they were aware that their needs could change. Participants explained that things that were currently irrelevant or of little consequence might become more important. Participant 26 said:

"I'm looking to the future a bit … I'm alright now, but if say, I live another couple of years, I've noticed that my health was not what it was three years ago."

Indifference

Participants sometimes expressed indifference towards particular cards. They spoke about not being "fussed", "bothered", "worried" or "interested" regarding certain cards, assigning them a lower priority. For example, Participant 31 said:

"I don't care where I sit. I don't care what's in the [my] room."

An attitude of indifference was particularly relevant to some of the choice-related cards. For some participants, this was because they did not mind whether they had choices or not. For others, this was because certain aspects of care were already occurring. The following response by Participant 31 illustrates this perspective:

"It doesn't really matter because I dress myself in the morning, I just pick the clothes I want and that's it."

Availability of staff members

A recurring theme throughout participants' responses was that there were not enough staff in terms of overall numbers, their busyness, and the number of permanent (versus agency) staff. Participants shared examples of when staff shortages had led to missed, rushed or delayed care, and unmet needs. Participant 13 explained that help was sometimes difficult to find:

"You could turn around and say, 'Where's the carers? Where? Where? I want a carer. Where are they?' You can't get one, there's no one around. And some [residents] have got buzzers, they could press their buzzers and nothing happens. As I say, they've [staff] got jobs, but then again they are supposed to be looking after me as well … how can they look after me if they're down working somewhere else?"

Two examples, 'Conversations' and 'Call bell' demonstrate how availability of staff influenced participants' priorities in different ways. 'Conversations' was ranked as either a neutral or low priority across factors. Participant 15 explained that 'Conversations' was a lower priority because staff members did not have the time to chat:

"They don't spend much time with you because they're busy, busy, busy. When they're chatting with you, somebody will press the buzzer [call bell]."

'Call bell' was ranked as either a neutral or high priority across viewpoints. Although some participants said that their call bells were answered immediately, often because it was rare for them to ring their call bell, other participants communicated that they were left waiting. For some, like Participant 9, 'Call bells' was a high priority because they recognised the urgency of needing help:

"Well I've had plenty of incidences. You know, they take at least an hour whenever you ring. And it's not good enough, you know, really. You could be dead on the floor."

Other participants acknowledged that staff members were busy attending to other residents who might be in greater need, and therefore understood they needed to "wait their turn". Participants also acknowledged that the problems generated by inadequate staffing were an organisational or systems issue and not a reflection on frontline staff. On the whole, participants spoke extremely highly of staff members, describing them as "kind", "sweet", "caring", "friendly", "patient" and "supportive". For example, Participant 9 said:

"They're [staff members] here to earn a living, but you know, some of them are absolutely wonderful … what they would do for you, if they had to. They are very friendly, and very nice, and go out of their way …"

DISCUSSION

Summary of findings

This study set out to understand residents' priorities for their care (Research Question 1), how care is prioritised (Research Question 2), and what influences prioritisation decisions (Research Question 3). Answering Research Questions 1 and 2, Q methodology revealed four viewpoints regarding prioritisation: Maintaining a sense of spirituality and self in institutionalised living; Information sharing and family involvement; Self-reliance; and Timely access to support. The management of medical conditions and respectful treatment by staff was highly prioritised across the four viewpoints.

Answering Research Question 3, four influences on residents' prioritisation decisions were identified: Level of dependency; Dynamic needs; Indifference; and Availability of staff. There were three issues that were repeatedly raised by participants: a desire to maintain independence, dissatisfaction with food, and staffing shortages. Below, we address these issues in relation to previous research, and outline recommendations for policy and practice.

Maintaining independence

Regardless of their level of dependency or assistance needs, participants stated that maintaining their independence in residential living was important. However, Meagher and colleagues' survey[31] of Australian aged care employees found that 79% of residential aged care staff reported not having enough time to support residents to do things for themselves.

Global evidence suggests that for many aged care residents, the transition period into a RACF is marked by losses.[32,33] Our study demonstrated that loss of independence was particularly

relevant to periods of transition into residential living which included adjustments to routines, services, smaller living spaces and a lack of privacy.

Although participants were dependent in some aspects of their care, they sought ways in which to exercise their independence elsewhere. This finding resonates with Hillcoat-Nallétamby's[34] finding that independence was conceptualised in various ways across different Welsh residential aged care settings, as well as with Paddock et al.'s[35] work which demonstrated that UK residents redefined what independence meant to them by focusing on minor daily accomplishments of autonomy.

Dissatisfaction with food and meals

The majority of participants expressed dissatisfaction with meals in regard to taste, nutrition, choice and preparation. 'Food enjoyment' is one of the 11 quality of life domains of the widely used Quality of Life Scales for Nursing Home Residents,[36,37] and has been found to be a predictor of residents' overall nursing home satisfaction.[38] Watkins and colleagues' systematic review[39] of mealtimes in North American, European and Australian RACFs identified 'meal quality and enjoyment' as one of four main themes, in which the taste of food, and residents' experience of pleasure from food were important to both staff members and residents. Our findings have high degrees of concordance with Abbey, Wright and Capra[40] who identified a lack of choice in the diets of residents living in Australian RACFs.

Staffing shortages

Participants conveyed that staff appeared busy and rushed due to staff shortages. This apparent lack of staff availability was reported in some instances to lead to unmet needs or delayed care. Across the literature, inadequate staffing levels is the most commonly reported factor associated with unfinished care in RACFs,[15,41] and is a prominent problem reported in various developed countries[42] including Australia,[43] the UK[44] and the US.[45]

The present study found that perceived lack of staff availability influenced participants' prioritisation of care, particularly in relation to 'Conversations' and 'Call bell' cards. Knopp-Sihota et al.[46] identified that talking with residents was the most commonly reported care activity missed and rushed in Canadian RACFs. In Meagher et al.'s report,[31] 91% of residential aged staff surveyed reported not having enough time to listen and connect with residents, and 84% reported not having enough time to talk with residents during mealtimes. Furthermore, the authors reported that 46% of respondents were either "always or often" unable to respond to call bells within five minutes, with an additional 35% "sometimes" unable to respond.[31]

Recommendations for policy and practice

In order to deliver care that aligns with residents' priorities, the project suggests four key recommendations for policy and practice:

1. ***Encouraging open communication between staff members and residents regarding residents' priorities for care.*** Residents in our study were able to identify their priorities and communicate why certain aspects of care were more or less important to them. In line with previous research,[47] participants acknowledged that their needs were dynamic and thus their priorities might also change. Open and continuous communication channels with residents can help staff better understand residents' priorities and how these might change over time. For residents with communication difficulties, an understanding of non-verbal communication cues[48] and seeking personal knowledge from family members[49] could facilitate an understanding of residents' priorities.
2. ***Supporting residents' independence.*** Maintaining independence was important for participants, regardless of the viewpoint they endorsed. Independence may be restricted in RACFs due to routines, concerns over safety, and time efficiency. Participants identified several strategies to facilitate independence, including care staff supporting residents rather than completing tasks for them (e.g., letting residents shower themselves under supervision), partially completing tasks while encouraging resident involvement (e.g., putting on residents' stockings or socks but letting them put on the rest of their clothes), flexibility of routines (e.g., showering) and respecting residents' preferences where appropriate (e.g., letting them make their own bed).
3. ***Improving meal choice and quality.*** The majority of participants expressed dissatisfaction with the quality and choice of meals. Eliciting residents' preferences and acting on this feedback would help enhance meal quality and food in RACFs. For example, in one of the participating facilities, residents were able to meet with catering staff to provide feedback on meals and menus. Participants commented that while there was still room for improvement, meals were substantially better since the introduction of these meetings.
4. ***Ensuring safer staffing ratios.*** Participants reported that staffing shortages affected the way in which care was delivered and how they prioritised care. The 2019 interim report from the Australian Royal Commission into Aged Care Quality and Safety labelled Australia's aged care system as a "shocking tale of neglect",[12(page 1)] with staffing levels and workload pressures identified as contributing factors. Furthermore, the Australian Nursing and Midwife Federation's 2016 MISSCARE survey[41] found that of 3,206 RACF staff members surveyed, only 8.2% reported that staffing levels

were “always” adequate. Our findings, along with other published research and stakeholder reports,[41,43,45] underline the importance of safer staffing levels in order to meet residents’ needs and priorities. Since the conclusion of our data collection, the Queensland government has passed the Health Transparency Bill in which state-run RACFs will be mandated to provide minimum hours of nursing care per resident per day.[50]

Strengths and limitations

One study strength was that the study design enabled the participation of residents with varying needs. During the interactive card sorting activity, cards could be manually sorted by participants or read out and placed on the board by a researcher. Cards were tailored to meet the needs of older adults: large text was used, they were printed on thick cardboard to avoid skin cuts, and a representative image meant that each card could be easily identified. Participants were guided through the activity by the first author, who was available to answer questions and provide clarity.

At the same time however, the recruitment criteria excluded residents who were unable to give informed consent or residents who were very ill. Consequently, the sample is somewhat biased towards residents who had higher cognitive capacity and physical health. Despite this limitation, the sample comprised residents with a variety of needs, self-rated levels of health, medical conditions, and functional abilities. While the sample was limited to a single provider, participants were recruited from five RACFs across two Australian states in an attempt to reduce the influence of environmental context.

Another limitation was that the study captured residents’ priorities at a single point in time. Participants acknowledged that their needs were dynamic, having changed since entering residential living and projected to change further. To provide a more accurate representation of prioritisation, longitudinal studies that map residents’ prioritisation of care over time are needed.

CONCLUSIONS

Our study demonstrated that residents meeting the participant inclusion criteria were capable of prioritising care and explaining those priorities. The research identified four viewpoints regarding prioritisation in addition to four influences on prioritisation decisions. Across the participant population, residents expressed a desire to maintain their independence regardless of their need for support, their dissatisfaction with meals, and their concerns over staffing shortages. The following recommendations are made for improving care delivery in RACFS:

encouraging open and ongoing communication between staff members and residents regarding residents' priorities for care, supporting residents' independence, improving meal choice and quality, and ensuring safer staffing ratios. These recommendations are applicable to an international context, as residential care systems in various developed countries face challenges to person-centred care similar to the ones identified by the present study, the Australian Nursing and Midwifery Federation[41,43] and the Australian Royal Commission into Aged Care Quality and Safety.[12]

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APPENDICES

Appendix A: Q cards, Q statements, care categories and factor arrays

Card label	Q Statement	Care category	Factor arrays: card rankings			
			Factor 1	Factor 2	Factor 3	Factor 4
Assistance getting dressed	Assistance getting dressed when needed	Activities of daily living	-3	+1**	-2	-2
Assistance with meals	Assistance with meals when needed	Activities of daily living	-2	-3	-2	-4
Assistance with walking	Assistance with walking when needed	Activities of daily living	-2	-1	-1	-3
Attitudes towards family	The facility/home is welcoming to family members	Psychosocial care	+1	0	-2**	0
Bathing and showering	Assistance with bathing/showering when needed	Activities of daily living	-2*	+2**	0**	-4*
Bowel care	Bowel care is provided when needed	Activities of daily living	-1**	+1	-4**	+1
Call bell	Call bell is responded to in a timely manner	Clinical care	+1	+1	0	+4**
Choice about room environment	Choice about what is in my room	Independence and choice	0	-2**	+3**	0
Clothing changed	Clothes are changed when needed	Activities of daily living	-1	-1*	-2	-2
Clothing choice	Choice about the clothes I wear	Independence and choice	-1	-3**	+1**	-1
Conversations	Carers/nurses chat with me	Psychosocial care	0	-3*	0	-1
Emotional support	Emotionally supported by carers/nurses	Psychosocial care	0	0	+1	+2
Family information	My family is informed about my medical care	Clinical care	+1	+4**	-1**	+1
Independence	I have independence	Independence and choice	+4	+1	+4	+2

Meal choice	Choice about meals	Independence and choice	+2	-2	-1	+1
Medical condition management	**Medical conditions are managed**	**Clinical care**	**+2**	**+3**	**+3**	**+4**
Medication management	Correct medication at the right time	Clinical care	+2	+3	+2	+3
Mobility	**Supported to keep active and mobile**	**Clinical care**	**+1**	**+1**	**0**	**+2**
Monitoring/ Safety	**I am kept safe from injury or medical harm**	**Clinical care**	**+1**	**+2**	**+1**	**0**
Nail care	Nail care is provided when needed	Activities of daily living	-3**	-4**	0	-1
Nutrition	Meals are nutritious	Clinical care	+3**	-2**	+1	+1
Oral care	**Regular dental and oral care**	**Activities of daily living**	**-1**	**-2**	**-1**	**0**
Personal grooming	Assistance with personal grooming when needed	Activities of daily living	-3	-1*	-3	-2
Privacy	My privacy is respected	Respect	+3*	0*	+2*	-1*
Repositioning	Assistance with repositioning when needed	Activities of daily living	-4	0**	-4	-3
Resident decision-making	Involvement in making decisions about my care	Clinical care	0*	+2	+3	+3
Resident information	I am informed about my medical care	Clinical care	0**	+4	+2	+3
Respect	**Care staff treat me with respect**	**Respect**	**+3**	**+2**	**+2**	**+2**
Seating choice	I can choose where to sit during group activities	Independence and choice	-1	-4**	+1**	-2
Skin care	Skin care is provided when needed	Activities of daily living	-2	-1	-3	0*

Social activities	Variety of social and leisure activities offered	Psychosocial care	0	0	0	-3**
Spiritual activities	Opportunities to engage in spiritual activities	Psychosocial care	+4**	0	-1	0
Staff knowledge	Staff are knowledgeable about my medical care	Clinical care	+2	+3	+4	+1
Toileting	Assistance with toileting needs	Activities of daily living	-4	-1	-3	-1

* Distinguishing statement at $p<0.05$

** Distinguishing statement at $p<0.01$

Consensus statements at $p>0.5$ are bolded

Appendix B: Visual representation of Factor 1 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Assistance with repositioning	Assistance getting dressed	Skin care	Clothing changed	Resident decision-making	Call bell	Medical condition management	Nutrition	Spiritual activities
Toileting	Nail care	Assistance with walking	Oral care	Resident information	Monitoring/ Safety	Staff knowledge	Respect	Independence
	Personal grooming	Bathing/ Showering	Bowel care	Emotional support	Family information	Medication management	Privacy	
		Assistance with meals	Seating choice	Conversations	Mobility	Meal choice		
			Clothing choice	Social activities	Attitudes towards family			
				Choice about room environment				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

Appendix C: Visual representation of Factor 2 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Nail care	Assistance with meals	Nutrition	Clothing changed	Assistance with repositioning	Call bell	Monitoring/ Safety	Medical condition management	Family information
Seating choice	Conversations	Oral care	Skin care	Emotional support	Mobility	Resident decision-making	Staff knowledge	Resident information
	Clothing choice	Meal choice	Assistance with walking	Social activities	Bowel care	Bathing/ Showering	Medication management	
		Choice about room environment	Personal grooming	Spiritual activities	Assistance getting dressed	Respect		
			Toileting	Attitudes towards family	Independence			
				Privacy				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

Appendix D: Visual representation of Factor 3 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Assistance with repositioning	Skin care	Clothing changed	Family information	Mobility	Monitoring/ Safety	Medication management	Medical condition management	Staff knowledge
Bowel care	Personal grooming	Assistance getting dressed	Oral care	Call bell	Nutrition	Resident information	Resident decision-making	Independence
	Toileting	Assistance with meals	Assistance with walking	Nail care	Emotional support	Respect	Choice about room environment	
		Attitudes towards family	Spiritual activities	Bathing/ Showering	Clothing choice	Privacy		
			Meal choice	Social activities	Seating choice			
				Conversations				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

Appendix E: Visual representation of Factor 4 factor array

-4	-3	-2	-1	0	+1	+2	+3	+4
Bathing/ Showering	Assistance with repositioning	Clothing changed	Toileting	Monitoring/ Safety	Family information	Mobility	Resident decision-making	Call bell
Assistance with meals	Assistance with walking	Assistance getting dressed	Nail care	Oral care	Staff knowledge	Emotional support	Medication management	Medical condition management
	Social activities	Personal grooming	Conversations	Skin care	Nutrition	Independence	Resident information	
		Seating choice	Clothing choice	Spiritual activities	Bowel care	Respect		
			Privacy	Attitudes towards family	Meal choice			
				Choice about room environment				

Legend

- Respect
- Clinical care
- Activities of daily living
- Psychosocial care
- Independence and choice

SUPPLEMENTARY FILE 1

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

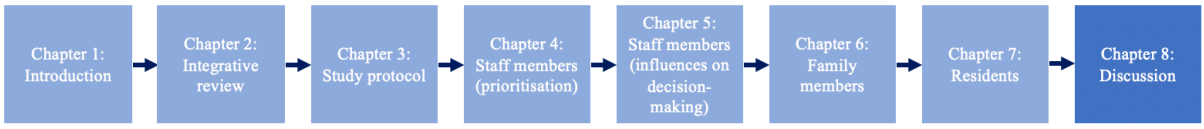
No	Item	Guide questions/description	Page number
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	Page 6
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	N/A
3.	Occupation	What was their occupation at the time of the study?	N/A
4.	Gender	Was the researcher male or female?	N/A
5.	Experience and training	What experience or training did the researcher have?	Page 6
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Page 7

No	Item	Guide questions/description	Page number
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? e.*g. personal goals, reasons for doing the research*	Page 4
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. *Bias, assumptions, reasons and interests in the research topic*	Page 4
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? *e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	Pages 6-7
Participant selection			
10.	Sampling	How were participants selected? *e.g. purposive, convenience, consecutive, snowball*	Page 4
11.	Method of approach	How were participants approached? e.*g. face-to-face, telephone, mail, email*	Page 4
12.	Sample size	How many participants were in the study?	Page 7

No	Item	Guide questions/description	Page number
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	Page 7
Setting			
14.	Setting of data collection	Where was the data collected? e*.g. home, clinic, workplace*	Page 7
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Page 7
16.	Description of sample	What are the important characteristics of the sample? *e.g. demographic data, date*	Pages 7-8 and Table 1
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Page 5
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	N/A
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Page 6
20.	Field notes	Were field notes made during and/or after the interview or focus group?	Page 6

No	Item	Guide questions/description	Page number
21.	Duration	What was the duration of the interviews or focus group?	Page 7
22.	Data saturation	Was data saturation discussed?	N/A
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	N/A
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	Page 7
25.	Description of the coding tree	Did authors provide a description of the coding tree?	N/A
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Page 7
27.	Software	What software, if applicable, was used to manage the data?	Page 7
28.	Participant checking	Did participants provide feedback on the findings?	N/A
Reporting			

No	Item	Guide questions/description	Page number
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.*g. participant number*	Pages 8-17
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Pages 18-21
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Pages 14-17
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	N/A



CHAPTER 8. DISCUSSION

8.1. Introduction

This thesis investigated the prioritisation of care, as part of the broader concept of unfinished care, within RACFs. As outlined in the thesis introduction, the Australian aged care system has come under scrutiny for providing suboptimal care to older Australians.[98,99] In 2019, The Royal Commission into Aged Care Quality and Safety's interim report revealed serious shortcomings in Australia's aged care system, labelling it a "shocking tale of neglect".[31 (page 1)] Australia is not alone in its failures to adequately care for older persons, with aged care systems around the world experiencing similar challenges to providing appropriate, safe and high-quality care.[100-103]

As we have seen, unfinished care, an umbrella term encompassing prioritisation (internal process), rationing of care (action) and missed care (outcome),[17,32] is a type of neglect that ultimately results in unmet needs.[19] My integrative review (Chapter 2) examined the current state of knowledge of unfinished care in RACFs and identified knowledge gaps in the literature.[32] The majority of included 'core' studies (those explicitly focusing on unfinished care) investigated missed care or rationing of care, whereas only two articles explored *bedside prioritisation*[b] of care.[56,58] Furthermore, none of the core studies involved residents or family members as participants. These knowledge gaps led to the formation of the overarching research objective of this thesis: *To investigate the prioritisation of care in residential aged care facilities from the perspectives of care providers and consumers*. To achieve this objective, three research questions were devised:

RQ1: How is care prioritised by staff members?

RQ2: How is care prioritised by family members?

RQ3: How is care prioritised by residents?

This led me to develop a protocol paper[104] describing the data collection methods and data analyses used to answer the three research questions. Table 8.1. summarises the research questions for each of the empirical studies in this thesis.

[b] Bedside prioritisation refers to the micro-level prioritisation of routine care and does not include meso- or macro-level prioritisation (e.g., allocation of funding, access to services), research priorities, prioritisation of interventions, or palliative care (e.g., the prioritisation of end-of-life treatments).

Table 8.1. Research questions

Research questions (RQs) for the project	Study	Study research questions (SRQs)
RQ1: How is care prioritised by staff members?	Staff members' prioritisation of care	SRQ1: What are staff members' priorities regarding the care they provide to residents? SRQ2: How do staff members prioritise care?
	Influences on staff members' prioritisation decisions	SRQ1: In what contexts do prioritisation dilemmas arise in RACFs? SRQ2: What influences staff members' prioritisation decision-making?
RQ2: How is care prioritised by family members?	Family members' prioritisation of care	SRQ1: What are family members' priorities regarding the care provided to their relative living in a RACF? SRQ2: How do family members of residents living in a RACF prioritise care? SRQ3: What influences family members' prioritisation decision-making?
RQ3: How is care prioritised by residents?	Residents' prioritisation of care	SRQ1: What are residents' priorities regarding their care? SRQ2: How do residents prioritise care? SRQ3: What influences residents' prioritisation decision-making?

Collectively, these studies met the research objective by identifying what care is prioritised, how care is prioritised and what influences prioritisation decisions, from the perspectives of staff members (care providers), and family members and residents (care consumers). This discussion chapter outlines the contribution of the thesis to the literature by providing summaries of research findings from each participant group, shared priorities across participants groups, and findings of the research in context. The chapter moves on to present recommendations for improving care provision in RACFs which flows from this discussion. I then articulate more specific contributions of the research project to knowledge gaps, research

methodology, theory and practice, followed by limitations of the research, future directions, implications for policymakers, care providers and consumers, and final conclusions.

8.2. Summary of findings from each stakeholder group

Table 8.2. summarises the main findings for each stakeholder group. Q methodology identified 11 viewpoints regarding the prioritisation of care; four staff member viewpoints, three family member viewpoints, and four resident viewpoints. Inductive content analysis revealed seven influences on staff members' decision-making, four influences on family members' decision-making and four influences on residents' decision-making.

Table 8.2. Study findings by stakeholder group

Stakeholder group	Viewpoints (Q methodology)	Influences on prioritisation decisions (inductive content analysis)
Staff members	1. Prioritisation of clinical care 2. Prioritisation of activities of daily living 3. Humanistic approach to the prioritisation of care 4. Holistic approach to the prioritisation of care	1. Perceived role responsibilities 2. Urgency of situations 3. Anticipation of consequences 4. Perceived teamwork and peer-support 5. Residents' care needs 6. Finding the balance between safety and affording residents their independence 7. Person-centred care and quality of life
Family members	1. Prioritisation of residents' physical needs 2. Maintaining residents' independence 3. Human connection	1. Residents' capabilities and support requirements 2. Unmet needs 3. Family bridging the gaps 4. Family knowledge of residents

Residents	1. Maintaining a sense of spirituality and self in institutionalised living	1. Level of dependency
	2. Information sharing and family involvement	2. Dynamic needs
	3. Self-reliance	3. Indifference
	4. Timely access to support	4. Availability of staff members

8.2.1. Staff members

Staff members were found to prioritise care in response to high workloads, inadequate staffing, unexpected events and conflicting demands. My research demonstrated that staff members' prioritisation of care was largely influenced by their perceived role responsibilities. The Registered Nurses and Managers represented by the four-factor solution all loaded on Viewpoint 1: Prioritisation of clinical care (e.g., medication administration). This meant that their Q sorts were significantly correlated with this factor. Care Assistants were represented by all four viewpoints, however, the majority loaded on Viewpoint 1, or Viewpoint 2: Activities of daily living (e.g., helping residents to use the toilet). The two Pastoral Carers represented by the factor solution loaded on Viewpoint 3: Humanistic approach to the prioritisation of care (i.e., the prioritisation of a meaningful life and residents' overall wellbeing). The majority of Activities and Lifestyle Officers loaded on Viewpoint 4: Holistic approach to the prioritisation of care (i.e., consideration of the whole care experience).

Participants often considered tasks outside the scope of their assigned duties to be a lower priority. My research illustrated how perceived role responsibilities could lead to a division of labour, and how this division could ultimately result in care being delayed or left undone. Six other influences on prioritisation decision-making were identified:

1. Participants prioritised tasks that needed an urgent response, for example, attending to resident falls or skin tears, whereas less urgent tasks were considered a lower priority.
2. Participants' prioritisation of care depended on their perceived level of peer-support and teamwork on any given shift. Tasks that could be delegated to another team member or delayed until the next shift were often a lower priority. As such, handovers were viewed as an important safety net for avoiding missed care.
3. Participants explained that it was important for residents to have independence, however, this was often a lower priority when it conflicted with staff members' concerns about residents' safety.

4. In some instances, residents' needs, such as the requirement that one or two staff members assist a resident (single- and two-assist, respectively), influenced the order in which residents were prioritised.
5. Participants acknowledged the importance of person-centred care and tried to provide care that enhanced residents' quality of life. Despite their efforts, person-centred aspects of care were often a lower priority when resources (e.g., staffing, time) were inadequate.
6. Participants prioritised care in ways that aimed to prevent harm and avoid adverse events from occurring. Care tasks that staff members anticipated would have more serious and negative consequences for residents if delayed or left undone were given higher priority.

8.2.2. Family members

Some family members viewed residents' physical needs to be their highest priority (Viewpoint 1), in terms of both clinical care and assistance with activities of daily living. Other family members focused on maintaining residents' independence (Viewpoint 2), especially when it came to residents who were self-sufficient or were starting to lose their independence due to marked declines in physical and cognitive functioning. Another group of participants prioritised human connection (Viewpoint 3), ranking social activities, conversations and emotional support as some of their highest priorities.

My research revealed that family members' prioritisation decisions were influenced by their residents' needs, capabilities and support requirements. Family members' priorities were also influenced by current and previous experiences of residents' unmet needs. Aspects of care that family members felt were not being adequately provided were often a high priority. It was common for participants to express anger, frustration and hopelessness in response to care they were dissatisfied with. Family members were often required to bridge the gaps in care when residents' needs were not being fully met. Those participants who regarded the provision of such care as being the responsibility of the facility, rather than the family, ranked the types of care they provided to their resident as high priorities. For these participants, gaps in care were viewed as a form of neglect. For other participants, who accepted their role as caregiver, these aspects of care were deemed to be a lower priority.

Family participants' personal knowledge of residents influenced the way they prioritised care. Their priorities reflected their perception of their residents' priorities, often considering them one and the same. They also described instances when their knowledge of residents' needs, preferences, histories and experiences facilitated or enhanced residents' care.

8.2.3. Residents

The degree to which residents felt they were dependent on others influenced their prioritisation of care. Participants who prioritised their independence over almost all other aspects of care were represented in Viewpoint 1 and 3. Residents loading on Viewpoint 1 explained that their independence and a sense of self, particularly their spirituality, was very important to them. For residents loading on Viewpoint 3, independence was conceptualised as self-reliance and a reluctance to accept assistance from other people. While participants loading on Viewpoint 2 valued their independence, it was not one of their highest priorities. Instead, they prioritised involvement from their family members regarding their care. Residents who prioritised timely support from staff members, both in terms of clinical care and emotional support, were represented by Viewpoint 4.

Residents in my study often recognised that their needs had changed since first entering residential living and were likely to change over time. Many residents prioritised care not only based on their current circumstances but also on what might become more or less important to them in the future.

Indifference to certain aspects of care also influenced prioritisation decisions. Aspects of care that participants did not have a strong opinion on were ranked as a low priority. Participants often expressed indifference when they felt an aspect of care happened automatically in the facility (e.g., having choice about their clothing) and therefore, it was not something they thought much about.

A lack of available staff was a common concern for resident participants, both in terms of their own care, and the wellbeing of staff members. Staff member availability influenced the prioritisation of care at both ends of the prioritisation spectrum. For example, having conversations with staff members was often viewed as a lower priority as residents accepted the fact that staff members were too busy to talk to them. On the other hand, answering call bells in a timely manner was ranked as a higher priority for some participants who described waiting long periods of time for a response from staff members.

8.3. Shared priorities across the participant groups

8.3.1. Consensus statements

Across the three participant groups, respect was a consensus statement, i.e., a card that did not significantly distinguish between any pair of factors. Treating residents with respect was a high priority for participants, regardless of which participant group they belonged to, or which viewpoint they loaded on. Many participants considered respect to be an all-encompassing

priority; they reasoned that if residents were respected then staff members would be kind and attentive when delivering care, residents' needs would be met, and their priorities and preferences would be taken into consideration.

For family member and resident participants, management of medical conditions was also a high priority consensus statement. A common explanation for the prioritisation of this card was that residents and their family members could not manage residents' medical conditions at home—residents lived in a RACF because they needed clinical care. Another explanation was that medical conditions often needed urgent attention, and the consequences of such attention not being provided were potentially fatal. Some participants explained that residents could live without social activities, for example, but their medical conditions might be a matter of life or death. Although Viewpoint 1, 'Prioritisation of clinical care' was the most dominant viewpoint for staff member participants, management of medical conditions was not a consensus statement as not all staff members prioritised residents' medical care. One possible explanation for this finding is that staff members tended to prioritise care based on their assigned duties and perceived role responsibilities, and not every staff member was directly responsible for attending to residents' medical conditions.

8.3.2. Person-centred care

Throughout participants' responses to the various study tasks, person-centred care was a common thread. Each group of participants prioritised care in ways that tried to support the person-centredness of care. Regardless of level of dependency, residents were found to prioritise their independence and being treated with respect was a high priority. Family members discussed the importance of understanding their resident as an individual, which included their life histories and who they were before they lived in a RACF, or before their cognitive functioning declined. They also spoke about the importance of treating residents with respect and dignity. One of the key influences on staff members' prioritisation of care was labelled 'person-centred care and quality of life'. Staff members emphasised the importance of encouraging residents to do things for themselves, as well as ensuring that residents had input into their own care. They also acknowledged the facility as residents' home; a space they should respect as a visitor.

Staff members and some family members described conflicts between person-centred care and other facets of care such as the prioritisation of safety, residents' needs (particularly mobility and cognitive impairments), and organisational factors such as role responsibilities and staffing shortages. Supporting the wider literature,[105-107] staff members described ways in which they tried to work around these constraints and challenges to achieve some degree of person-centredness for residents. This included considering residents' schedules and preferred

timing of care where possible, having conversations with residents while preforming other duties, and asking residents about their care preferences.

Both staff member and family participants spoke about how person-centred care might look different for residents with cognitive impairment, particularly in terms of independence. For example, one family members spoke about how offering a lot of choice to their mum would confuse her and stress her out, however, it was important that staff members explained things to their mum and spoke to her in a kind tone. Staff members spoke about encouraging residents to do things for themselves, however small the action was. One staff member gave the example of asking a resident with dementia to pass them a cup rather than taking it themselves, thus allowing the resident to have autonomy while facilitating interaction between the resident and staff member. These examples align with seminal work on person-centred care.[108-110] While the delivery of person-centred care might look different for residents with dementia, the underlying concepts of person-centred care are the same (Box 8.1.).

Box 8.1. Underlying concepts of person-centred care in RACFs

- Creating a home-like environment
- Creating a positive social environment that supports meaningful interactions and relationships
- Offering residents choices about their care
- Providing meaningful activities
- Respecting and valuing residents
- Supporting selfhood (the sense of personal identity that a person holds based on their values and beliefs)
- Understanding that residents are individuals with unique needs
- Taking a holistic approach to care delivery
- Treating residents with dignity
- Viewing things from the perspectives of residents

Source: Author's conceptualisation, adapted from Brooker,[111] Brooker and Latham,[112] Fazio, Pace, Flinner and Kallmyer,[14] Kogan, Wilber and Mosqueda,[113] and Levy-Storms, Love, Pinkowitz and Dementia Initiative.[114]

8.4. Research findings in context

Having presented the key findings from this thesis, I now turn to the literature in order to situate my findings in context and demonstrate how my research as a whole body of work complements and builds upon previous research. Prioritisation was found to be a response to several situational factors that align with Kalisch et al.'s Missed Nursing Care Model.[19] Specifically, I found that prioritisation occurred when there were high workloads, unexpected events and conflicting demands (i.e., demand for patient care) and inadequate staffing (i.e., resource allocation—labour). My findings also map to Schubert et al.'s Conceptual Framework of Implicit Rationing of Nursing Care, where nursing work environment (e.g., adequacy of resources), workload, and patients' care needs influenced decision-making, level of implicit rationing, and ultimately patient and nurse outcomes.[24]

Across the three participant groups, several recurring issues were identified as having an effect on the provision of care, influencing participants' prioritisation of care, and in some instances, contributing to missed care or dissatisfaction with care. These issues are: Respect for residents' preferences and priorities; staffing levels; workforce training; task-oriented care; the individuality of residents' care needs; routines; residents' independence; family involvement in care; communication; and food and meals. Each of these issues will be explained in more detail below in relation to existing literature.

8.4.1 Respect for residents' preferences and priorities

In line with Bangerter et al.'s finding that 'staff showing respect' was one of residents' highest preferences for their care,[83] resident, staff member and family member participants all indicated that treating residents with respect was of high importance to them. This included respecting residents' preferences and priorities regarding their care. Staff members explained that residents' preferences should be respected, however, resident characteristics (e.g., cognitive impairment) and organisational constraints such as inadequate staffing could make this challenging. Staff members spoke about trying to take residents' preferences for timing of care into consideration (e.g., preferred time to shower) and would work around residents' schedules where possible. This finding indicates that staff members used a person-centred approach to care, thus resonating with Vassbø et al[105] who found that nursing homes personnel in Sweden, Norway and Australia conceptualised person-centred care as meeting residents' expressed preferences for care and understanding their daily rhythms and routines.[105]

Family members valued residents' preferences and priorities, often aligning their own priorities with what they believed would be a priority for their resident. For some family members, this meant respecting residents' life stories; the life their resident had before

entering RAC. Previous research has identified sharing residents' life stories as important to family members and as a way they can promote person-centred care.[67,115]

Extending previous work on older persons' preferences for care,[78,83,84] my research demonstrated that residents with higher cognitive functioning, as well as those with mild cognitive impairment (as advised by facility management), were able to prioritise care and articulate why certain aspects of care were considered more or less important to them. Echoing the findings of Heid et al.,[84] resident participants recognised that their priorities were likely to change depending on their circumstances. My research indicates that in order to provide person-centred care, providers should ensure that discussions are had with residents to elicit their care priorities. Aligning with Goodman et al.'s[116] research on preferences and priorities for ongoing and end-of-life care, my research suggests that these discussions should be ongoing as opposed to a single occurrence upon admission into a RACF.

8.4.2. Staffing levels

My integrative review identified inadequate staffing levels as the most commonly reported factor associated with unfinished care in RACFs.[32] This finding supports the link between staffing levels and care omissions established by Griffith et al.'s systematic review in acute settings.[51] Of the 18 included studies, 14 demonstrated a significant association between low nurse staffing levels and higher reports of missed care. My research also aligns with Slettebø et al.'s study of clinical prioritisation in which inadequate staffing was identified as a major contextual constraint to the provision of good care.[58]

Staffing shortages was a problem discussed by all three participant groups in relation to the prioritisation of care and missed care. Ultimately, staff, resident and family member participants believed that staffing levels were too low to adequately meet the needs of all residents, all of the time. Residents and family members perceived staff members to be very busy, attributing some of their experiences of delayed or omitted care to a lack of staff. 'Availability of staff' was one of the influences on residents' prioritisation decisions identified by the inductive content analysis. My research findings provide supporting evidence for the Counsel Assisting the Royal Commission into Aged Care Quality and Safety's submission on workforce[117] that advocated for mandatory minimum staffing ratios in order to better support RACF workforces and ensure that residents receive high-quality and safe care.

8.4.3. Workforce training

The issue of workforce training (including education and qualifications) was mentioned by many of the resident and family member participants, particularly at the end of interviews when asked if there were any other issues they wanted to discuss. It was also an issue

identified in terms of cards that participants thought were not represented by the Q sort deck. Both family members and residents expressed concerns that the training and experience required to work in a RACF was inadequate, especially in terms of the length of training. Family members also questioned whether enough specialised training was provided for working with residents with higher care needs such as those with cognitive impairment. A small number of staff member participants also discussed the need for improvements in training and professional development. Education/training was one of the identified factors associated with unfinished care in my integrative review.[32] For example, one of the included studies[118] found that skill-mix was an issue related to staff members' competencies and knowledge.[118] Specifically, increases in resident acuity were not matched by level of staff member experience, with the authors identifying a trend to use less qualified and knowledgeable support staff (e.g., Care Assistants) to complete work previously undertaken by Registered Nurses.[118]

Participants' concerns about workforce training are similar to those outlined in the Counsel Assisting the Royal Commission into Aged Care Quality and Safety's submission on workforce.[117] In their submission, the Counsel Assisting presented evidence suggesting that staff members "do not have the required skills and training to assist the vulnerable people in their care".[117(page 17)] Aligning with the views of resident and family member participants, the Counsel put forth the recommendation for a transformation in aged care training and education including mandatory minimum training and aged care focused training (e.g., dementia care, falls prevention and continence management).[117]

8.4.4. Task-oriented care

Staff members' perceptions about their role responsibilities and role boundaries were found to influence prioritisation decisions, ultimately creating a division of labour based on their job position. Furthermore, family member participants recognised that staff members were task-oriented in their provision of care. Similar patterns of division of labour and task-oriented approaches to care have been identified in Canadian RACFs.[119,120]

My research also provides insights into how a division of labour can lead to certain aspects of care becoming neglected. Similar to Kalisch's work in acute care settings, many staff member participants considered tasks perceived to be outside the scope of their assigned duties as a lower priority, known as 'it's not my job syndrome'.[121,122] This was especially true when it came to the provision of person-centred care, for example, offering residents' choices about their care or having conversations with them. In line with findings from Simmons et al., offering residents choices and chatting to them were recognised as important for residents' wellbeing, however, several barriers to the provision of person-centred care existed.[123]

In order to enhance person-centred care, my research indicates that more integrated approaches to care are needed. This could include modifying the training provided to staff members, reducing the rigidity of assigned duties, or learning from international models of integrated care, such as those found in Sweden's RACFs.[120]

8.4.5. Individuality of residents' needs

Building on previous studies of prioritisation,[16,57,58] residents' individual needs were found to influence prioritisation decisions for all participant groups. The inductive content analyses identified the following influences on participants' decision-making: 'Residents' needs' (staff members), 'Residents' capabilities and support requirements' (family members), 'Level of dependency' (residents) and 'Dynamic needs' (residents). Family members and residents prioritised care depending on residents' functional abilities (e.g., mobility), need for assistance (e.g., help using the toilet), cognitive capacity (e.g., dementia) and medical conditions (e.g., diabetes). Some staff members explained that it was difficult to prioritise care during the card sorting activity as all residents were different. This was especially true when considering the care provided to residents with and without cognitive impairment. In line with Brownie and Nancarrow's systematic review,[124] my research indicates that in order to provide person-centred care for residents, care provision needs to be individualised[23]—a one-size-fits-all approach is not appropriate. Issues identified by my research as impeding individualised care included task-centred care, strict routines, inadequate training, staffing shortages, and insufficient time to perform responsibilities. Suhonen and colleagues also recognised these barriers in their literature review on the implementation of individualised nursing care.[125]

8.4.6. Routines

Staff member participants reported that care delivery was largely dictated by their assigned duties and established routines. Additionally, some family member participants reported that staff members appeared to be rule-bound and routine-oriented. In line with Brownie, Horstmanshof and Garbutt,[126] task-focused care and routines were perceived by family members to impede individualised care, described by one participant in my study as an inability to "think outside the box". Following on from previous work,[127-129] my research found that for some residents, adjusting to routines was a difficult part of their transition into a RACF. Furthermore, it demonstrated that in order to provide person-centred and individualised care to residents, RACFs need to allow staff members to be more flexible in their routines.

8.4.7. Residents' independence

Independence proved to be a complex issue, with all three participant groups recognising the importance of residents' independence as well as the challenges associated with independence in RAC environments. Extending previous research on autonomy and risk management,[130-132] staff member participants reported a struggle between allowing residents to be independent while also ensuring that they were safe. For some family members, independence was a high priority as their resident was self-sufficient. Other family members expressed that despite their individual resident's determination to be independent, independence was not always feasible when assistance with daily living tasks was required. Across the four resident viewpoints, the prioritisation of independence varied somewhat; however, it was consistently ranked towards the higher end of the Q sort grid. Residents expressed their desire for independence where possible but acknowledged that they needed to rely on staff members or family members for certain aspects of their care. Similar to Paddock et al. and Ball et al.,[133,134] residents found meaningful ways to exercise their independence. Residents explained that staff members could facilitate residents' independence in the following ways: encouraging residents to complete tasks for themselves, supervising residents while they carried out tasks, partially completing tasks for residents while encouraging their involvement, and respecting residents' preferences for care, including timing of care, where appropriate.

8.4.8. Family involvement in care

Supporting previous reviews of family involvement in residents' care,[67,68] my study demonstrated that family members played a significant role in providing care for residents when their needs were not being fully met by care facilities. As found by other studies,[67,68,135] family member participants demonstrated an in-depth knowledge about their residents. Additional aspects of care that family members felt were not represented by the Q sort deck included 'Recognition of family members as informal carers', 'Family involvement in care/decision-making' and 'Visitors (family and friends)'. For many participants, the fact that family members needed to fill gaps in care and advocate for residents' unmet needs was upsetting and frustrating.

Family involvement in care was also very important to some of the resident participants, especially for those loading on Viewpoint 2: 'Information sharing and family involvement'. Staff member participants acknowledged that family members' involvement in care was important and 'Involving family in care planning' was suggested as an additional card. However, staff members also spoke about experiencing conflict between what some family members wanted for residents and what staff members believed was best for residents' care. Similar conflicts between staff members and family members have been described elsewhere

in the literature.[136-140] Creating an inclusive environment in which family members are valued as part of the care team could help reduce some of the conflict between family members and care providers, as well as the burden experienced by family caregivers.

8.4.9. Communication

All three participant groups identified communication as an important aspect of care not adequately captured by the Q sort deck. Family members in particular advocated for improved communication between staff members, staff and family, and staff and residents. Several family members shared their experiences of missed care as a result of poor communication. Staff member participants explained that although communication with residents was important, they often did not have the time to have in-depth conversations with them. Previous studies have also found communication breakdown between different stakeholders in RAC settings.[57,136,137,141] For example, Pedersen et al. described staff members' time to communicate with patients/residents and family members as 'scarce', making it difficult to understand their needs and preferences.[57] My integrative review found that 'communication with residents and family' was one of the most common types of unfinished care, and 'Communication/collaboration between facility staff members' was identified as a factor associated with missed or rationed care.[32] My research suggests that encouraging open channels of communication between all stakeholders would better facilitate care and potentially reduce instances of missed care.

8.4.10. Food and meals

Food and meals were common topics of discussion for resident participants. Although some residents were content with the meals served in RACFs, the majority expressed strong dissatisfaction with a variety of food-related issues, including food preparation, the variety of food on offer, meal choices, the 'interestingness' of food, and the appropriateness of meals for older people. Furthermore, many residents spoke about the difficulty of adjusting to meals in residential living, particularly when they compared them to home cooked meals. Our research supports previous work demonstrating that food is an important aspect of residents' experience of RAC,[142] particularly in terms of their choices about food,[143,144] and yet, evidence suggests that there is a lack of choice in the diets of aged care residents.[145] Multiple family member participants also felt that food/meals was not adequately addressed by the Q sort deck, especially in terms of the appropriateness of food and the need for 'interesting' food. My research suggests that in order to enhance residents' experiences of residential living, overall improvements to meals are needed. Efforts to improve meals should involve eliciting feedback from residents' regarding their meal preferences and subsequently acting on this feedback.

8.5. Recommendations for improving care provision in RACFs

Based on the evidence from sections 8.2., 8.3. and 8.4., I devised ten recommendations to guide improvement efforts in RAC systems. The majority of recommendations are targeted towards aged care organisations, with some recommendations, particularly those related to workforce, more relevant at the policy-level. The recommendations are as follows:

1. Elicit and respecting residents' preferences and priorities where possible (refer to 8.4.1.)
2. Enforce safer staffing ratios (refer to 8.4.2.)
3. Improve workforce training (refer to 8.4.3.)
4. Deliver integrated care (refer to 8.4.4.)
5. Provide individualised care (refer to 8.4.5.)
6. Allow flexibility of routines (refer to 8.4.6.)
7. Support residents' independence (refer to 8.4.7.)
8. Value family members as part of the care team (refer to 8.4.8.)
9. Encourage open channels of communication with family and residents (refer to 8.4.9.)
10. Improve meals (refer to 8.4.10.)

8.6. Specific research contributions

While previous sections of this thesis have demonstrated the contributions of the research to the literature, this section delves into more detail about the specific contributions to knowledge gaps, research methodology, theory and practice.

8.6.1. Contributions to knowledge gaps

The integrative review identified several fundamental gaps in the literature on unfinished care in RAC settings.[32] This thesis made substantial contributions to the literature by addressing three of these knowledge gaps, as outlined below.

8.6.1.1. Knowledge gap 1

There is a lack of focused research on the prioritisation of care in RAC settings. Fifteen of the 17 core studies included in the integrative review[32] (i.e., unfinished care was the main focus of the study) investigated the *action* of rationing care and/or the *outcome* of missed care. Only two studies[56,58] explicitly investigated the *internal process* of prioritisation. These two studies formed part of a larger research project on prioritisation in Norwegian public hospitals and

nursing homes. An additional 27 studies were classified as informing studies; that is, they addressed unfinished care in the methods or findings, despite not being the main focus of the study. Across the informing studies, 'prioritisation/priorities' was revealed as the most commonly used primary term associated with the concept of unfinished care, identified in 70% of studies. The review findings indicated that although prioritisation is a significant issue in RACFs, it is a largely under-researched concept. My thesis contributes to the limited research on care prioritisation in RAC by generating knowledge about what care is prioritised, how care is prioritised and what influences prioritisation decisions in this setting.

8.6.1.2. Knowledge gap 2

Studies of unfinished care in RACFs are dominated by the viewpoints of Nurses and Care Assistants. The core studies included in the integrative review[32] focused predominately on the experiences and opinions of Nurses and Care Assistants (i.e., care workers, care aides or care staff). Furthermore, the two core studies explicitly assessing prioritisation of care focused on the views of clinical staff members only. Care providers in RACFs include a diversity of clinical and non-clinical staff members; however, the multidisciplinary nature of RAC teams has not been captured in studies of unfinished care, including studies of prioritisation. My studies on staff members' prioritisation helped to close this knowledge gap by exploring prioritisation of care from the perspectives of staff members working in a range of job positions. Staff members in this research project included those who were routinely involved in providing direct care to residents: Care Assistants, Registered Nurses, Lifestyle and Activity Officers, Pastoral Carers and Managers.

8.6.1.3. Knowledge gap 3

There is a lack of representation of consumer stakeholders, specifically, family members and residents, in studies of unfinished care in RACFs. No core study in the integrative review[32] included family members as participants and only one included resident participants; however, the part of the study involving residents did not focus on unfinished care.[146] Neglecting to involve consumers in research about unfinished care provides a biased representation of this concept in the literature. My studies on family members' and residents' prioritisation demonstrated the value of including consumers as participants in this research field. My research generated new knowledge regarding resident and family members' priorities for care, their experiences of care provision, and their concerns with current RAC systems.

8.6.2. Methodological contributions of the research

This thesis demonstrated the value of using multiple methods to answer research questions on complex topics, such as prioritisation, with each method making a unique contribution to the

research. The research integrated participants' responses to the forced-choice card sorting activity; anecdotes about their experiences; their opinions, perspectives and preferences; and their verbalised decision-making processes, producing a holistic account of prioritisation. One of the strengths of the research project was the integration and triangulation of quantitative and qualitative methods at every stage of research, from study design, through data collection and data analysis, to interpretation.[147] Quantitative data obtained from the card sorting activity enabled subjective viewpoints to be studied in a systematic way.[6] Rich qualitative data from the think-aloud task, post-sorting interviews and semi-structured interviews facilitated the interpretation of these viewpoints as narrative accounts.[148] Inductive content analysis[93] revealed additional information about prioritisation through the identification of influences on decision-making.

The research project also made contributions to the research field by showcasing the methodological strengths and challenges of using Q methodology in RACFs. While Q methodology studies in health services research have predominately been conducted with healthcare professionals, including staff members of RACFs, my research comprises some of the few English-language studies to use Q-methodology in aged care resident and family member populations.[149,150] To the best of my knowledge, these are the first studies to use Q-methodology in conjunction with a think-aloud task and/or semi-structured interviews within these two consumer participant groups. The information outlined below can be used by other researchers applying similar methods in RAC settings, to guide study designs, development of study materials and data collection processes.

8.6.2.1. Methodological strengths

Q methodology

Q methodology was demonstrably an effective method for establishing participants' viewpoints regarding their priorities and the prioritisation of care. Whereas items on surveys are usually considered separate entities—commonly ranked using a forced-choice format or Likert scale—Q methodology requires participants to consider the importance of each card (i.e., aspect of care) in relation to every other card. Crucially, Q methodology forced participants to choose between different aspects of care, with limited spaces on the Q sort grid allocated to the highest and lowest priorities. The structured Q sort grid was particularly useful in discerning between high and low priorities of staff member participants who often said that they wished they could put every card at the higher end of the grid as they considered every part of care to be important.

Although some of the staff member participants voiced concerns about the time commitment of the card sort activity, once they became engaged in the task they frequently asked to

continue beyond their allocated time. Some of the resident participants reported enjoying the card sorting activity, comparing it to a game or a puzzle. For example, one participant said:

"I hate this [card sorting activity] being over; I love these sorts of things … I do crossword puzzles. I love that."

One of the greatest strengths of the research was ensuring that the card sorting activity met the various needs of aged care residents, for example, those with vision impairment, hearing loss, speech impairment, mild cognitive impairment and mobility/functional limitations. A flexible approach to the card sorting activity contributed to the success of the research. Cards could be read by the participant or by myself as the researcher, they could be pointed to, and they could be placed on the board by myself or the participant, depending on the individual resident's needs and preferences. The card sorting activity was piloted by a convenience sample of family members, and statements were discussed with the management team of one of the participating facilities to ensure that the wording of the statements was appropriate and relevant to residents.[104]

Card design

The materials used in the card sorting activity were specifically developed to accommodate residents' needs.[104] First, the font used for the card statements was clear and large to cater for residents with poor vision. Second, each card presented a simple image to help residents search for cards and remember what each card meant. Third, the shape, texture, thickness and weight of the cards was designed so that residents could easily hold the cards while reducing the risk of skin cuts. Fourth, each card was fitted with a small magnet and the Q sort grid was transferred onto a magnetic whiteboard. Residents often had small rooms, with limited or no desk space, so the board could be placed on a bed or walker, or held up by myself. Using a whiteboard also meant that the card activity could be conducted in various locations during the staff member and family member studies.

Think-aloud task

The think-aloud task was valuable in directing the post-sorting interviews, as well as providing insights into participants' decision-making in real-time. Participants often used the task to justify their placement of cards. This was particularly true for family members and staff members regarding their lower priorities, as they often expressed feeling guilty about placing an aspect of care lower on the Q sort grid. The think-aloud task also allowed participants to ask questions, which facilitated the card sorting process.

Post-sorting interviews

The post-sorting interviews allowed for targeted questions about card placement, for example, if participants had difficulty placing a certain card on the Q sort grid or had a strong reaction to a card. Cards may have been placed under the same rank on the Q sort grid by different participants for entirely different reasons. The post-sorting interviews made it possible to explore these reasons, thus helping to shape the narrative accounts of the viewpoints identified by the Q factor analysis. By asking participants if any cards were not represented by the Q sort deck, additional aspects of care that participants felt strongly about were uncovered, particularly in terms of care they were dissatisfied with.

Semi-structured interviews

Semi-structured interviews provided an open platform for participants to express their opinions, as well as share their lived experiences. Asking participants at the conclusion of an interview if there was anything further that they wanted to discuss sometimes generated new insights into prioritisation and unfinished care. This gave some participants the opportunity to vent their frustration about the aged care system, their work environment, their family members' unmet needs, or the care they received. Other participants were able to express their appreciation of staff members, or their love for residents, or how much satisfaction they gained from their job.

Study administration

Of the three participant groups, family members were the hardest to recruit, with one of the most common barriers being an inability to complete the study on-site at one of the facilities. Offering family members the option of completing the study online (card sorting activity and demographic questionnaire) and via telephone (interviews) facilitated the recruitment of family members who otherwise would have missed out on the opportunity to participate in the study.

8.6.2.2. Methodological challenges

I experienced similar methodological challenges to conducting research in RACFs as those described by Hall et al.[151] Specifically, these challenges related to obtaining informed consent, finding time to conduct the study, and privacy. In terms of obtaining informed consent, some of the residents who were identified by management as meeting the inclusion criteria, were ultimately unable to give consent. For some residents, this was apparent during preliminary discussions about the research. Other residents initially agreed to participate in the study, but appeared confused at a second meeting, having forgotten that they had previously spoken with me about the research.

Finding time to conduct the study was challenging for staff member participants who were time-pressured and juggling multiple responsibilities. I attempted to overcome this by offering staff members more flexible arrangements, for example, the option to complete the interview and Q sorting activity at different times, and by working around their schedules.

Privacy was a challenge encountered for all participant groups as there was generally a lack of private space in the facilities in which to conduct the studies. Most residents elected to complete the study in their room, however, on multiple occasions staff members interrupted the study as they needed to deliver food, clean, or conduct basic medical tests. A smaller number of residents preferred to complete the study in a communal room in which other staff members and residents were present. For family members, the study was conducted in a quiet location, such as an empty lounge room or dining hall, although it was common for other people to walk past. Staff members often needed to continue to keep an eye on residents during the study or be available to return to the floor if needed, and therefore, it was common for the research to take place in a communal area. Participants did not express any concerns regarding privacy, however, interruptions from other people did occasionally disrupt the flow of the study.

An additional challenge involved the recruitment of family member participants. In line with ethical requirements, I was unable to directly approach family members or obtain their contact information. In developing the study, it was agreed upon that designated staff members from each facility would contact family members. Due to high workloads, these staff members were unable to find the time to contact family. As a result, I had low family recruitment rates through advertisement posters. In order to overcome this challenge, two additional facilities were recruited, bringing the total number of facilities to five. These two facilities implemented recruitment strategies that were able to reach a greater number of family members and boost participation rates.

I also encountered methodological challenges specific to the use of Q methodology. The card sorting activity was an unfamiliar task for participants with some initially finding it difficult to understand the sorting process. This was particularly true for those residents who started sorting the cards relative to their perception of whether care was being satisfactorily carried out or not, as opposed to by level of importance. The think-aloud task helped to identify this problem early. This meant that the purpose of the study could be re-explained, or participants could be asked how important something was to them, even if they felt it was not always happening.

Q methodology can be a time-consuming process as many decisions must be made about the placements of cards, relevant to all other cards. Residents generally took longer than family

members and staff when it came to the card sorting activity. To reduce the burden placed on residents, their mood and fatigue levels were monitored throughout the activity, and they were offered the opportunity to take a break and continue the study at a later time. As mentioned above, limited time was also a problem for some of the staff member participants. Although every staff member who agreed to participate in the card sorting activity completed it, some staff members rushed the task.

8.6.3. Theoretical contributions of the research

Research on unfinished care in RACFs has focused on the *Antecedents* and *Missed nursing care* components of Kalisch, Landstrom and Hinshaw's Missed Nursing Care Model.[19] This aligns with *Organisational variables*, *Nursing work environment*, *Patient variables* and *Nurse variables* in Schubert et al.'s Conceptual Framework of Implicit Rationing of Nursing Care.[24] To-date, only two other studies[56,58] have explored *priority decision-making* as part of Kalisch et al.'s *Nurses' internal process* component, or *priority-setting* as part of Schubert et al.'s *Philosophy of care.* My research makes a contribution to these theoretical frameworks by providing evidence-based support for some of the relationships between different model components. In terms of Kalisch et al.'s model, my research supported the notion that priorities are influenced by demand for patient care, resources and relationships. It also provided evidence that prioritisation can lead to missed care and poorer consumer outcomes. While mapping to Kalish's model in some ways, my research, against a broad context of complexity theory, discovered additional influences on prioritisation such as patient characteristics, regulations and standards, urgency of situations, and anticipation of consequences. Some, but not all of these, are captured by Schubert et al.'s Framework.

While the Missed Nursing Care Model has been updated to include staff outcomes in subsequent work,[152] similar to the Conceptual Framework of Implicit Rationing of Nursing Care, any mention of family members is absent. One probable explanation for this is that both models were designed for acute care settings where family members are less likely to be involved in care in comparison to RAC. My research demonstrated how Kalisch et al.'s model could be modified for aged care settings. In Chapter 4, I present my Conceptual Model of Unfinished Care in Residential Aged Care Facilities based on the findings from my two studies with staff members. While this model focuses on staff members' priorities only, I intend to produce an updated version during my planned post-doctoral body of research comparing the care priorities of staff members, family members and residents.

8.6.4. Contributions to practice

Reinforcing previous literature,[78-86] my research showed that consumers can have valuable input into discussions about care provision, even those who are easily marginalised and often

excluded from such discussions, for example, individuals with hearing loss. The knowledge generated by the research project can guide RACF management and frontline staff members to deliver care in line with residents' and family members' priorities.

Although such issues were not the primary focus of the research, participants revealed negative experiences regarding missed care, particularly in terms of delayed care. Residents and family members expressed either frustration or resignation when it came to residents' unmet needs. Staff members spoke about the ways in which conflicting demands, and the necessary prioritisation of some aspects of care over others, could result in missed care. All participant groups discussed systemic problems they believed were preventing staff members from providing the level of care that residents needed and deserved. Building upon these findings, my set of recommendations (section 8.5) can guide improvement efforts to reduce the burden on aged care workforces and prevent instances of missed care.

8.7. Limitations of the research

Despite attempts to capture a diverse participant sample through purposive sampling, the research was limited by several participant-related factors. First, the participant selection criteria excluded residents who were unable to provide informed consent or were physically incapable of participating in the study. A significant proportion of individuals living in RACFs have advanced cognitive impairment and/or complex medical conditions. Consequently, because the research findings largely reflected the views of healthier individuals with greater cognitive functioning, they may not be representative of all residents. The study sample did, however, capture the views of residents with a variety of health issues, medical conditions and self-rated levels of health, as well as the views of family members with relatives (residents) who did not meet the inclusion criteria.

Second, it is possible that family members were more likely to consent to participation if they were dissatisfied with the care provided and wanted the opportunity to articulate their concerns. However, as the study captured a range of views including the views of family members who said that they had never experienced a problem with the care provided to their resident, the probability of this is low.

Third, it is possible that staff members who were more invested in residents' care were more willing to participate in the study. Considering the high participation rate of staff members (84.2%[c]), it is unlikely that this was the case.

[c] The research project involved thirty-two staff member participants. One participant completed the interview and demographic questionnaire only. Another participant completed the card sorting activity, demographic

Fourth, participating facilities belonged to a single aged care provider. In an attempt to reduce the effects of facility-related context and improve the generalisability of study results, five RACFs were recruited to participate in the research. These facilities varied in their size, workforce composition, location and participant demographics (e.g., socioeconomic status).

Another potential limitation of the research was the small Q set size (i.e., the number of cards/statements to be sorted). It is recommended that Q sorts comprise between 40-80 statements; however, Watts and Stenner argue that this range is only a guide, with Q methodology studies having been successfully completed with fewer statements.[153] In order to reduce possible cognitive and physical burden placed upon resident participants, and the time commitment needed to complete the task, the card sorting activity was limited to 34 cards. To ensure that the Q sort deck adequately represented the care delivered in RACFs, members of the management team from one of the participating facilities were asked to provide feedback on the cards during the development of the study materials. Additionally, any aspects of care not captured by the Q sort deck were identified by participants during the post-sorting interviews.

Due to the interactional nature of the card sorting activity, I acknowledge the potential influence I had on the study results, particularly in relation to my interactions with resident participants. These interactions generally included placing cards on the Q sort grid, reading card statements out loud, and re-phrasing instructions. For some participants, interactions also included organising cards into smaller piles to reduce cognitive burden, showing participants where certain cards were if they asked, and reminding participants of things they had previously verbalised when they experienced difficulties progressing with the task. In some instance, I also guided participants to consider the instructions from a different perspective when they were confused. While I directed participants through the card sorting activity, the prioritisation of care (i.e., decision-making) was ultimately an independent task. Participants were given the opportunity to rearrange their cards upon completion of their Q sort, and were asked to explain their decision-making through the think-aloud activity and post-sorting interviews.

As with any research project, the design, data collection, analysis, interpretation and write-up of a study is influenced by the researcher's world view. Here, I would like to acknowledge various beliefs I hold in relation to the provision of aged care:

- Older adults are entitled to the same basic human rights as everyone else and should not be discriminated against based on age;

questionnaire and post-sorting interviews, but not the semi-structured interviews. An additional six participants declined the invitation to participate in the study.

- Aged care should be considered as part of the healthcare system and therefore should be publicly funded;
- 'Care' is a holistic concept comprising the whole care experience, including medical, emotional, spiritual, cultural, social, and domestic elements;
- Aged care should be person-centred and involve a partnership between residents, the care organisation, aged care staff members, family members and other healthcare professionals;
- Women disproportionately share the burden of caregiving, including the informal care of older adults. While family members have a role to play in aged care, this role should not be forced upon them; and
- Australia's aged care system is under-resourced, particularly in terms of labour.

I recognise that these pre-conceived perspectives are likely to have shaped my research. Where possible, I made efforts to reduce biases imposed by my views through the systematic collection, analysis and interpretation of data, consultation with my supervisory team, and reflection on others' research findings.

8.8. Future directions

My research addressed key knowledge gaps in the literature regarding the broader topic of unfinished care and more specifically, prioritisation, while also identifying additional knowledge gaps and directions for future research. Future directions for researchers are outlined below:

- *Conduct empirical comparisons between the priorities of different stakeholder groups.*

  Further research is needed to establish empirical comparisons between the priorities of the three participant groups. One way in which to do this would be to recruit resident and family dyads, in addition to staff members routinely providing direct care to that particular resident. Participants in my studies were recruited independently from one another, and therefore, potential relationships between participants were unknown.
- *Explore the prioritisation of care from the perspectives of other stakeholder groups.*
  My research focused on staff members who routinely provided care to residents, ultimately excluding certain stakeholder groups from the research, for example, agency staff members, volunteers, visiting general practitioners, and allied health professionals. These types of healthcare workers often work across different facilities, have sporadic interactions with residents, and may not be familiar with facilities in terms of their culture and routines. Further research is needed to ascertain how

healthcare workers providing intermittent care to residents prioritise care and how their priorities differ from the priorities of more permanent staff members.

- *Map priorities over time.*

  My research suggested that priorities can be flexible, changing over time or in response to different circumstances. Changes in priorities were particularly relevant to transitions into residential living, as well as in response to declines in physical health and cognitive functioning. My research was cross-sectional and therefore, priorities/ prioritisation were assessed at a single point in time. To reflect the dynamic nature of priorities, researchers should consider using longitudinal methods to map priorities over time.

- *Investigate real-word experiences of care prioritisation of care though observational methods.*

  My research relied on self-reporting methods and participants' recall of previous experiences. In order to capture staff members' prioritisation of care as a response to real-world scenarios, observational studies are warranted. Access to participants in observational studies can be challenging for researchers due to the reluctance of staff members to be shadowed or observed, time commitments required by the research team, and ethical issues regarding the observation of staff members in their interactions with non-consenting parties (e.g., other staff members or residents). An alternative approach could be to ask participants to produce multiple Q sorts in response to different conditions of instructions, for example, staff members could be asked to order the Q sort deck in terms of the care provided to residents with cognitive impairment, and then to re-order the cards considering residents with high cognitive functioning.

- *Consider the perspectives of residents with cognitive impairment in studies of prioritisation.*

  As has been found in studies of everyday preferences,[79-82] residents with no or mild cognitive impairment were able to identify their priorities for care through Q methodology and interviews. Due to Q methodology's complexity and the time commitment needed to complete the card sorting activity, it is unlikely to be an appropriate method for residents with advanced cognitive impairment. Researchers should make efforts to assess the priorities of residents with more advanced cognitive impairment in ways suited to their needs. If it is not feasible to include these residents, an alternative approach could be to use family members as proxies.[73,76] My study of family members found that participants often considered residents' priorities when

establishing their own priorities. Re-framing the condition of instruction in this study to ask family members how their residents would prioritise care could enable the views of residents with cognitive impairment to be better represented. It is important to note however, that previous studies have found some discrepancies between the preferences of family proxies and their older parents,[71,77] and therefore, residents' views should be directly sought where appropriate.

- *Investigate the connections between prioritisation, rationing of care and missed care.*

  Prioritisation is theoretically linked to rationing of care and missed care in models of missed, rationed and unfinished care.[19,24,32] Although not the primary focus of this research project, participants discussed rationing of care and missed care in relation to unmet priorities, staffing shortages, delayed care and dissatisfaction with care provision. Despite my research providing insights into how these concepts relate to one another, empirical relationships between prioritisation, rationing of care and missed care have yet to be assessed.

- *Explore the outcomes of unfinished care for different stakeholders.*

  My integrative review (presented in Chapter 2), found that only one study[54] has directly assessed the outcomes or consequences of unfinished care in RACFs. This study concerned resident outcomes only, with no other research having assessed the outcomes of unfinished care on family member or staff member outcomes. While my research provided insights into the consequences of prioritisation and missed care, empirical assessment of the relationship between unfinished care and outcomes for different stakeholders is warranted.

8.9. Research implications

8.9.1. Implications for policymakers

My research findings have implications for both Australian policymakers and international policymakers of countries who are grappling with problems similar to the ones Australia faces in providing care to older consumers. I believe that this thesis is timely considering the ongoing reforms to Australia's aged care sector, specifically, the recent release of new Aged Care Quality Standards and the ongoing investigation into the state of care provision in aged care settings by the Australian Royal Commission into Aged Care Quality.[37]

The Australian Government released new Aged Care Quality Standards in July 2019, shortly after I completed data collection. The ways in which my research findings map to these standards are outlined in Table 8.3.

Table 8.1. Mapping of research findings to the 2019 Aged Care Quality Standards

Standard	Description*	How my research maps to the standard
Consumer dignity and choice	"You are treated with dignity and respect, and can maintain your identity. You can make informed choices about your care and services, and live the life you choose"	• All three participant groups identified respect as a high priority. • Although staff members recognised the importance of residents' choices about their rooms, meals, clothing and seating, choice-related cards were consistently ranked as lower priorities as other aspects of care were considered to be more important. • Some family members and staff members recognised that cognitive impairment meant that residents may not make appropriate choices. • While having choice was important for some residents, other residents expressed indifference towards choice-related cards.
Ongoing assessment and planning with consumers	"You are a partner in ongoing assessment and planning that helps you get the care and services you need for your health and wellbeing"	• Resident participants were able to express their priorities during the study and articulate why certain aspects of care were more or less important to them. Furthermore, many residents said that they felt confident speaking with staff members or management about unmet needs. • While involving residents in decision-making about their care was seen an important, it was not always a high priority for staff members and family as cognitive impairment was seen to limit residents' capacity for decision-making. • For some family members, it was more important that they received information about residents' care rather than residents receiving it. • For most residents, their involvement in decision-making was important, as well as their family members' involvement.
Personal care and clinical care	"You get personal care, clinical care, or	• Medical condition management was a high priority consensus statement for residents and family members.

	both, that is safe and right for you”	• Delayed care was more commonly reported compared to care left undone, adverse events and errors. This was often attributed to staffing shortages. • Timely answering of residents’ call bells was an issue brought up across the participant sample. Specifically, there were not always enough staff to attend to multiple call bells simultaneously, forcing staff members to prioritise some residents over others. • When gaps in care were present, family members often stepped in to provide this care.
Services and supports for daily living	“You get the services and supports for daily living that are important for your health and wellbeing, and that enable you to do the things you want to do”	• A variety of social, spiritual, emotional, clinical and medical services were offered to residents. • Overall, residents prioritised their independence and the ability to do the things that they wanted to do. • Staff members and family members both noted a conflict between residents’ independence and safety concerns. • Staff members made efforts to promote residents’ independence where possible.
Organisation’s service environment	“You feel you belong and are safe and comfortable in the organisation’s service environment”	• While some residents considered the facility that they lived in as their home, others were still struggling to adjust. • The transition into RAC was discussed by staff members and family as often being a difficult and emotional period for residents. • Staff members viewed the facilities as residents’ homes and staff members as guests.
Feedback and complaints	“You feel safe and are encouraged and supported to give feedback and make complaints. You are engaged in processes	• Most of the resident participants expressed that they were comfortable voicing their concerns. They could identify the appropriate person and process to make a complaint, with a number having done so in the past.

	to address your feedback and complaints, and appropriate action is taken"	• A few residents admitted to not wanting to 'make waves' and cause trouble by complaining. • Family members commonly spoke about previous complaints or ongoing complaints. Some family members expressed that they felt their concerns were taken seriously and appropriate action had been taken, particularly for more serious incidences. However, many family members expressed frustration that they had to continually advocate for residents and bring attention to their experiences of inadequate care.
Human resources	"You get quality care and services when you need them from people who are knowledgeable, capable, and caring"	• All three participant groups identified inadequate staffing as a prominent issue. • Inadequate staffing was found to lead to prioritisation dilemmas and missed care, particularly delayed care. • Residents and family members brought up concerns about the training and knowledge of staff members, particularly Care Assistants. • Overall, residents and family members expressed that staff members were caring and kind.
Organisational governance	"You are confident the organisation is well run. You can partner in improving the delivery of care and services"	• Residents and family members were, for the most part, satisfied with the efforts of staff members, however, they identified concerns about system-level problems including staffing shortages, staff member training, communication breakdown and the quality of food and meals. • The facilities made various efforts to partner with residents and their families in improving the delivery of care, for example, by holding town hall-style meetings for residents, family and management, and establishing group meetings with residents and caterers regarding food and meals.

[*] Descriptions sourced from the Australian Government's My Aged Care website[154]

In terms of the Royal Commission, my research supports some of the key findings regarding workforce staffing levels and training from their interim report, released in October 2019.[31] The report acknowledged that staff members are "doing their best in extremely trying circumstances where there are constraints on their time and on the resources available to them".[31(page 8)] The report goes on to say that the residents' needs are becoming increasingly more complex, and there is a lack of suitable trained staff and overall staffing levels in RACFs to meet these needs.

These systemic problems have also been emphasised in reports from the Australian Nursing Midwifery Federation (ANMF).[28,66] The ANMF's Final Report from their National Aged Care Survey 2019 outlined that almost 91% of staff members surveyed indicated that having adequate staffing levels for meeting residents' basic care needs was their greatest concern, followed by adequate staffing levels for providing for residents with high care needs (82.5%). In their 2016 National Aged Care Staffing and Skills Mix Project Report, the ANMF reported that only 8.2% of participants believed that staffing needs were 'always adequate.'[28]

My research indicates that there is a need for government policy enforcing better training standards, as well as safer staffing ratios in terms of overall staffing levels and skill-mix. The Health Transparency Bill, passed in the Australian state of Queensland in 2019, mandates minimum Nurse to Personal Worker (Care Assistant) ratios, as well as minimum daily resident contact hours in state-run facilities.[155] Victoria has mandated staffing ratios for RAC, however, this is only applicable to high care services operated by a hospital.[156] Currently, no other Australian state has government mandated staffing ratios for RAC. My research findings suggest that in order to support staff members, improve the care provided to residents, and reduce the need for staff members to prioritise some aspects of care over others, government legislation on minimum staffing levels in RACFs is necessary.

Eagar and colleagues found that using the United States' Centers for Medicare and Medicaid Services Nursing Home Compare system, 57.6% of Australian RACFs have unacceptable staffing levels.[157] Furthermore, they estimated that a 37.2% and 49.4% increase in staffing levels would be needed to raise the standards of care in RACFs to a level of 'good practice' and 'best practice', respectively.[157] The authors argue that additional federal funding is required to achieve adequate standards of care through increased staffing levels. Currently, Australia's spending on long-term care (health and social components) is estimated at 1.2% of GPD,[158] lower than the 1.7% OECD average[b].[159] While Eagar and colleagues argue that 3.6 hours of care per resident per day are required to meet residents' needs,[157] the ANMF has recommend that a minimum of 4.3 hours are needed. These figures are greater than the 2.9

[b] Includes 17 countries that report health and social components of long-term care expenditure.

hours residents receive.[28] The ANMF also advocate for a skill-mix of 30% Registered Nurses, 20% Enrolled Nurses and 50% Personal Care Workers.[28] The latest available data show that 14.9% of the residential aged care workforce are Registered Nurses, 9.3% are Enrolled Nurses and 71.5% are Personal Care Workers.[157]

8.9.2. Implications for care providers

My research has implications for both care organisations and frontline workforces. By identifying what staff members, residents and family members prioritise, how they prioritise care, the situations in which prioritisation dilemmas arises, problems with current systems, experiences of unmet needs and missed care, and the mechanism for preventing missed care (e.g., the importance of handovers), my research can help aged care organisations to better align care provision with the priorities of consumers while considering challenges faced by staff members.

All participant groups advocated for greater support for staff members, especially when it came to staffing levels and training. My research identified that staff members are forced to prioritise care as a result of high workloads, inadequate staffing, unexpected events and conflicting demands. When sharing their experiences of prioritisation, staff members described needing to be in two places at once and that they sometimes experienced uncertainty when making prioritisation decisions in the moment. Participants explained that there could be negative consequences (both for residents and staff members) if residents' care was left unattended; however, it was often impossible for staff members to attend to multiple residents at the same time. These findings imply that care organisations need to provide better guidance on how to deal with conflicting demands, as well as how to make prioritisation decisions in real-time.

My research indicates that many of the problems experienced in RACFs result from broader organisational- and system-level shortcomings rather than at the individual staff level. Overall, resident and family member participants spoke about staff members with admiration and affection. The few participants who had experienced a negative encounter with a specific staff member stated that for the most part they were satisfied with management's efforts to resolve the problem. Many consumer participants acknowledged that staff members were trying their best in a resource-constrained environment, with some expressing concern for staff wellbeing. My research advocates for greater support and resources in RACFs to enhance the capacities of workforces to deliver high-quality and appropriate care.

8.9.3. Implications for consumers

Staff members revealed instances when they were forced to prioritise care which led to certain aspects of care being neglected, rushed or delayed. Similarly, family members and residents

recalled incidences of delayed care and unmet needs, particularly in response to staffing shortages. My research findings have implications for the quality and safety of care provided to residents living in RACFs, as they suggest that residents do not always receive adequate care, with forced prioritisation of care contributing to the problem.

My research also has implications for family members who provide care. Reinforcing the findings from published systematic reviews,[67,68] family members were found to bridge gaps in care by coordinating services, sharing knowledge, advocating for residents, and providing direct care to residents. My research suggests that family members are an integral part of the care team. However, not all family members participating in this study were happy to have caregiver responsibilities, especially when they believed that they were paying a substantial amount of money for RAC. These family members expressed feelings of anger, frustration and hopelessness, and expressed that it was unjust that they were expected carry a lot of the caregiving burden. Many claimed that their role as caregiver had led to exhaustion, emotional distress, a loss of personal time, and a loss of paid employment. My research indicates that there is a lack of support for family caregivers at the system-level, and that family members should be afforded a choice about their level of involvement in residents' care.

If family members bridge gaps in care and advocate for residents, then my research also has implications for those residents who have no family or have family who are less involved in care. One possibility is that the extent of these residents' unmet needs will be greater, putting them at risk of poorer health and wellbeing outcomes. An alternative possibility is that staff members will pay more attention to these residents, knowing that they lack family support. Care facilities should be aware of the impact family members have on care and ensure that measures are in place to prevent residents with low family involvement from falling through the cracks in the RAC system.

8.10. Final conclusions

The research presented in this thesis investigated the under-researched phenomenon of care prioritisation in RACFs. Through a comprehensive integrative review of the literature and three empirical studies, presented as four journal articles, my research generated new knowledge on the contexts in which prioritisation dilemmas arise, the types of care that are prioritised, how care is prioritised, and what influences prioritisation decisions in RACFs. My thesis adds to the limited knowledge we have about care prioritisation in RACFs by providing additional insights from the perspectives of a variety of clinical and non-clinical staff members, family members and residents. In my quest to understand the prioritisation of care, my research revealed prominent shortcomings in Australia's aged care system, prompting the

creation of ten key recommendations for improving care in RACFs. My research also uncovered links between prioritisation dilemmas and inadequate care.

The Royal Commission into Aged Care Quality and Safety stated the following in their interim report: *"We have found that the aged care system fails to meet the needs of our older, often very vulnerable, citizens. It does not deliver uniformly safe and quality care for older people. It is unkind and uncaring towards them. In too many instances, it simply neglects them."*[31 (page 1)] In response to this claim, my research demonstrates that in order to prevent neglect in complex, pressurised, and under-resourced aged care systems, an understanding of care prioritisation, from the perspectives of both care providers and consumers, is crucial.

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Appendix A (Ethics approval) of this thesis has been removed as it may contain sensitive/confidential content

Appendix B: Accepted abstract: 18th National Conference of Emerging Researchers in Ageing

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V. and Braithwaite, J. (2019) Staff members' prioritisation of care in residential aged care facilities. Abstract for the *18th National Conference of Emerging Researchers in Ageing*, Sydney, Australia, November 5.

Background: Ageing populations and the rising prevalence of multi-morbidities and cognitive impairment are placing increasing demand on residential aged care facilities (RACFs) to meet older Australians' care needs. However, RACFs often have high workloads and insufficient time for staff to complete all care tasks. This imbalance can force staff to prioritise care, making decisions about what aspects of care are more important. Care tasks assigned a lower priority may be delayed or left undone (i.e., missed care), which can lead to adverse outcomes for residents. *Objective:* The purpose of this study was to identify how care staff working in RACFs prioritise care provided to residents. *Method:* Participants included 32 staff from five RACFs in NSW and QLD. Q methodology was used to assess the viewpoints (factors) held by staff members regarding prioritisation. Participants rank-ordered aspects of care from least to most important into a quasi-normal distribution grid. Rankings were analysed using by-person factor analysis. Qualitative data (think-aloud activity and semi-structured interviews) were analysed using inductive content analysis to aid interpretation of factors. *Results:* Four shared viewpoints were identified: Factor 1: Clinical-oriented tasks, such as medication administration, were prioritised. Factor 2: Assistance with daily living was most important to participants, particularly hygiene-related care (e.g., bathing/showering, oral care). Factor 3: Residents' independence and wellbeing were valued most. Participants prioritised residents' interactions, including conversations and emotional support. Factor 4: Participants' highest priorities comprised a diversity of caring domains (clinical, assistance, psychosocial, respect, autonomy). Across the four viewpoints, basic medical care was consistently prioritised, with residents' choices given lower priority. *Conclusion:* The identification of four distinct viewpoints emphasised the diversity in how staff prioritise care. Our findings suggest the need for greater focus in including residents in their care and affording them choice, without compromising aspects of care prioritised by staff members.

Appendix C: Poster: ISQua's 36th International Conference

Ludlow, K., Churruca, K., Ellis, L.A. and Mumford, V. (2019) Care prioritisation by residents, family members and care staff in residential aged care: A Q methodology study. *Poster presented at ISQua's 36th International Conference*, Cape Town, South Africa, October 22.

CARE PRIORITISATION BY RESIDENTS, FAMILY MEMBERS AND CARE STAFF IN RESIDENTIAL AGED CARE: A Q METHODOLOGY STUDY

isqua2019.0af027c

MACQUARIE University SYDNEY·AUSTRALIA

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OBJECTIVES

To investigate how care is prioritised by residents, family members and care staff in residential aged care facilities (RACFs).

METHODS

- Five RACFs from the Australian states of New South Wales and Queensland.
- 38 residents, 27 family members and 32 staff members.
- **Card sorting activity (Q methodology):** Participants organised 34 cards, each representing an aspect of care from 'Least important' (-4) to 'Most important' (+4).
- **Think-aloud task:** During the card sorting activity, participants verbalised their decision-making processes.
- **Semi-structured interviews:** Participants were asked about personal experiences regarding care prioritisation.
- Ethics approval was obtained from the participating organisation and Macquarie University.

ANALSIS

- Q data were analysed using centroid factor analysis and varimax rotation in PQMethod. Similar patterns of card sorting were identified, representing distinct viewpoints on the prioritisation of care.
- Data from the think-aloud task and interviews were used to interpret viewpoints. This data was further analysed using inductive content analysis to understand the factors influencing prioritisation decisions.

RESULTS

Residents

1. Knowing support is available
2. Living a fulfilling life
3. Communication about care
4. Independence

Influenced by:

Personal capabilities

Sense of autonomy

Personal interests

Needs: now and in the future

Family members

1. Residents' physical needs
2. Residents' independence and psychosocial needs
3. Interactional care

Influenced by:

Residents' capabilities

Residents' needs

Residents' unmet needs

Knowledge of residents

Staff members

1. Clinical care
2. Activities of daily living
3. Humanistic approach
4. Holistic approach

Influenced by:

Role responsibility

Task urgency

Perceive teamwork

Safety vs. independence

Residents' needs

Person-centeredness

Anticipation of consequences

Appendix D: Accepted abstract: Australasian Society of Behavioural Health and Medicine 2020

Ludlow, K., Churruca, K., Ellis, L.A., Mumford, V. and Braithwaite, J. (2020). The influence of role division on staff members' prioritisation of residents' care. Abstract for the *Australasian Society of Behavioural Health and Medicine 2020*, Sydney, Australia, February 6.

Background: Healthcare employees' decisions, behaviours and actions can have profound effects on patient outcomes. One at-risk group is aged care residents as they are often dependent on staff members, especially those with complex medical needs and/or cognitive decline. Evidence suggests that residential aged care facilities (RACFs) are under resourced, and as a result, staff must prioritise the care they provide. Prioritising one aspect of care over another can lead to care being missed (delayed or omitted). Missed care has been associated with adverse health outcomes for consumers across healthcare settings. In order to prevent missed care and support better health outcomes for residents, it is important to understand the prioritisation behaviours of staff. *Methods:* Participants were 31 staff members from five RACFs in QLD and NSW. Participants completed a card sorting activity using Q methodology. They sorted 34 cards, each representing an aspect of care, on a pre-defined grid ranked from least to most important. Q factor analysis techniques identified shared viewpoints amongst participants. Participants also engaged in a think-aloud task and semi-structured interviews, providing insight into staff decision-making and lived experiences of prioritisation and missed care. Data were analysed using inductive content analysis. *Results:* Four distinct viewpoints were identified: Prioritisation of clinical care; Prioritisation of activities of daily living; Humanistic approach; and Holistic approach. Prioritisation was influenced by perceived role responsibilities. Lower priority was given to tasks outside the scope of assigned duties, a phenomenon known as "it's not my job syndrome". Consistently, person-centred care was a lower priority, as staff focused on more task-oriented aspects of care. *Conclusions:* When time is pressured and resources are inadequate, staff members prioritise the care they provide to residents in RACFs. Our findings demonstrate that care outside the scope of staff members' defined roles is considered a low priority, and is therefore susceptible to being missed, putting residents at risk. To support better health outcomes for residents, as well as person-centred care, we recommend more holistic and integrated approaches to staff training.

Appendix E: Q sort decks

Assistance with meals

Resident: front view

Assistance with meals when needed

Family: front view

Assistance with meals when needed

Staff: front view

Assistance with meals when needed

Resident: back view

- Cutting up food
- Help holding utensils
- Assistance with eating and drinking

Family: back view

- Cutting up food
- Help holding utensils
- Assistance with eating and drinking

Staff: back view

- Cutting up food
- Help holding utensils
- Assistance with eating and drinking

Assistance with walking

Resident: front view

Assistance with walking when needed

Family: front view

Assistance with walking when needed

Staff: front view

Assistance with walking when needed

Resident: back view

- Assistance with walking frames
- Carers are available to assist with walking when needed

Family: back view

- Assistance with walking frames
- Care staff are available to assist with walking when needed

Staff: back view

- Assistance with walking frames
- Available to assist with walking when needed

Attitudes towards family

Resident: front view

The facility/home is welcoming to family members

Family: front view

The facility/home is welcoming to family members

Staff: front view

The facility/home is welcoming to family members

Resident: back view

- Staff greet family members
- Family members' involvement in care is encouraged

Family: back view

- Staff greet family members
- Family members' involvement in care is encouraged

Staff: back view

- Staff greet family members
- Family members' involvement in care is encouraged

Bathing and showering

Resident: front view

Assistance with bathing/showering when needed

Family: front view

Assistance with bathing/showering when needed

Staff: front view

Assistance with bathing/showering when needed

Resident: back view

- Getting in and out of the bath/shower
- Washing

Family: back view

- Getting in and out of the bath/shower
- Washing

Staff: back view

- Getting in and out of the bath/shower
- Washing

Bowel care

Resident: front view

Bowel care is provided when needed

Family: front view

Bowel care is provided when needed

Staff: front view

Bowel care is provided when needed

Resident: back view

- Management of constipation, diarrhoea, or faecal incontinence

Family: back view

- Management of constipation, diarrhoea, or faecal incontinence

Staff: back view

- Management of constipation, diarrhoea, or faecal incontinence

Call bell

Resident: front view

Call bell is responded to in a timely manner

Family: front view

My family member's call bell is responded to in a timely manner

Staff: front view

Residents' call bells are responded to in a timely manner

Resident: back view

- Carers/nurses respond quickly when I use the Nurse Call System

Family: back view

- Carers/nurses respond quickly when my family member uses the Nurse Call System

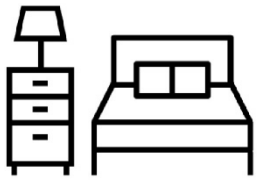
Staff: back view

- Staff respond quickly when residents use the Nurse Call System

Choice about room environment

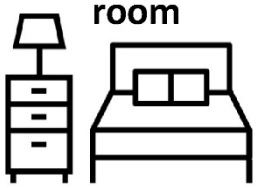
Resident: front view

Choice about what is in my room



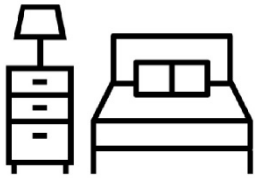
Family: front view

My family member has choice about what is in their room



Staff: front view

Residents have choice about what is in their room



Resident: back view

- Furniture
- Belongings
- Photographs
- Artwork

Family: back view

- Furniture
- Belongings
- Photographs
- Artwork

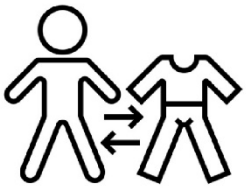
Staff: back view

- Furniture
- Belongings
- Photographs
- Artwork

Clothing changed

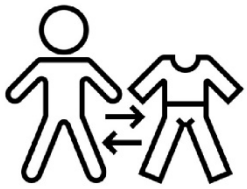
Resident: front view

Clothes are changed when needed



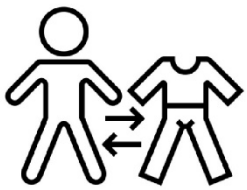
Family: front view

Clothes are changed when needed



Staff: front view

Residents' clothes are changed when needed



Resident: back view

- In the morning
- If clothes are soiled or dirty
- At night
- Assistance changing clothes if needed

Family: back view

- In the morning
- If clothes are soiled or dirty
- At night
- Assistance changing clothes if needed

Staff: back view

- In the morning
- If clothes are soiled or dirty
- At night
- Assistance changing clothes if needed

Clothing choice

Resident: front view

Choice about the clothes I wear

Family: front view

My family member has choice about the clothes they wear

Staff: front view

Residents have choice about the clothes they wear

Resident: back view

- Clothing options
- My clothing preferences are considered

Family: back view

- My family member has clothing options
- Their clothing preferences are considered

Staff: back view

- Residents have clothing options
- Residents' clothing preferences are considered

Conversations

Resident: front view

Carers/nurses chat with me

Family: front view

Care staff chat with my family member

Staff: front view

Time is taken to chat with residents

Resident: back view

- Carers/nurses talk to and listen to me
- Carers/nurses show an interest in what I have to say

Family: back view

- Care staff talk to and listen to my family member
- Care staff show an interest in what my family member has to say

Staff: back view

- Talking and listening to residents
- Showing an interest in what residents have to say

Emotional support

Resident: front view

Emotionally supported by carers/nurses

Family: front view

Care staff provide emotional support

Staff: front view

Emotional support is provided to residents

Resident: back view

- I am comforted by carers and nurses
- Carers/nurses understand my feelings

Family: back view

- Care staff comfort my family member
- Care staff understand my family member's feelings

Staff: back view

- Comforting residents
- Understanding residents' feelings

Family Information

Resident: front view

My family is informed about my medical care

Family: front view

I am informed about my family member's medical care

Staff: front view

Family members are informed about residents' medical care

Resident: back view

- The purpose and results of blood tests
- Information about medication

Family: back view

- The purpose and results of blood tests
- Information about medication

Staff: back view

- The purpose and results of blood tests
- Information about medication

Independence

Resident: front view

I have independence

Family: front view

My family member has independence

Staff: front view

Residents have independence

Resident: back view

- Carrying out independent tasks
- Choosing what activities to participate in
- Input about own care

Family: back view

- Carrying out independent tasks
- Choosing what activities to participate in
- Input about own care

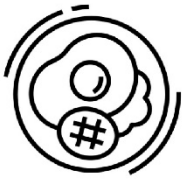
Staff: back view

- Carrying out independent tasks
- Choosing what activities to participate in
- Input about own care

Meal choice

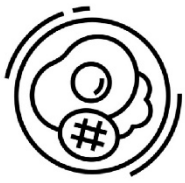
Resident: front view

Choice about meals



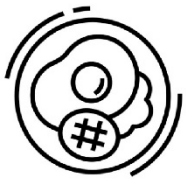
Family: front view

My family member has choice about their meals



Staff: front view

Residents have choice about their meals



Resident: back view

- I have choice about what and when I eat
- I am provided with food options

Family: back view

- My family member has choice about what and when they eat
- My family member is provided with food options

Staff: back view

- Residents have choice about what and when they eat
- Residents are provided with food options

Medical condition management

Resident: front view

Medical conditions are managed

Family: front view

Medical conditions are managed

Staff: front view

Residents' medical conditions are managed

Resident: back view

- Wound care
- Hearing aids are cleaned
- Blood sugar monitoring
- Blood pressure measured

Family: back view

- Wound care
- Hearing aids are cleaned
- Blood sugar monitoring
- Blood pressure measured

Staff: back view

- Wound care
- Hearing aids are cleaned
- Blood sugar monitoring
- Blood pressure measured

Medication management

Resident: front view

Correct medication at the right time

Family: front view

Correct medication at the right time

Staff: front view

Correct medication at the right time

Resident: back view

- Pain medication
- Medication for medical conditions

Family: back view

- Pain medication
- Medication for medical conditions

Staff: back view

- Pain medication
- Medication for medical conditions

Mobility

Resident: front view

Supported to keep active and mobile

Family: front view

My family member is supported to keep active and mobile

Staff: front view

Residents are supported to keep active and mobile

Resident: back view

- Stretching exercises
- Physical exercises
- Movement activities

Family: back view

- Stretching exercises
- Physical exercises
- Movement activities

Staff: back view

- Stretching exercises
- Physical exercises
- Movement activities

Monitoring/Safety

Resident: front view

I am kept safe from injury or medical harm

Family: front view

My family member is kept safe from injury or medical harm

Staff: front view

Residents are kept safe from injury or medical harm

Resident: back view

- I feel safe from falls, harm, or injury
- Medical conditions are monitored

Family: back view

- Measures are put in place to reduce falls, harm, or injury
- Medical conditions are monitored

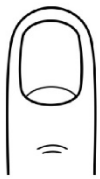
Staff: back view

- Measures are put in place to reduce falls, harm, or injury
- Medical conditions are monitored

Nail care

Resident: front view

Nail care is provided when needed

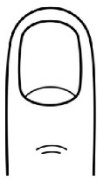


Family: front view

Nail care is provided when needed

Staff: front view

Nail care is provided when needed



Resident: back view

- Cutting fingernails
- Cutting toenails
- Cleaning nails

Family: back view

- Cutting fingernails
- Cutting toenails
- Cleaning nails

Staff: back view

- Cutting fingernails
- Cutting toenails
- Cleaning nails

Nutrition

Resident: front view

Meals are nutritious

Family: front view

Meals are nutritious

Staff: front view

Residents' meals are nutritious

Resident: back view

- Meals are balanced—meat, vegetables, fats, vitamins etc.
- Prevention of nutritional deficiencies

Family: back view

- Meals are balanced—meat, vegetables, fats, vitamins etc.
- Prevention of nutritional deficiencies

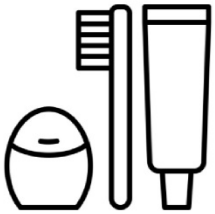
Staff: back view

- Meals are balanced—meat, vegetables, fats, vitamins etc.
- Prevention of nutritional deficiencies

Oral/Dental care

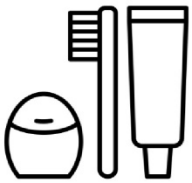
Resident: front view

Regular dental and oral care



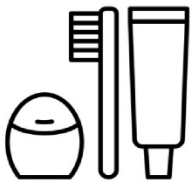
Family: front view

Regular dental and oral care are provided



Staff: front view

Regular dental and oral care are provided



Resident: back view

- Teeth cleaning
- Teeth flossing
- Dental treatments
- Dentures cleaned

Family: back view

- Teeth cleaning
- Teeth flossing
- Dental treatments
- Dentures cleaned

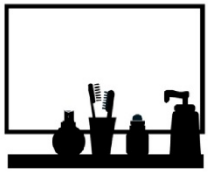
Staff: back view

- Teeth cleaning
- Teeth flossing
- Dental treatments
- Dentures cleaned

Personal grooming

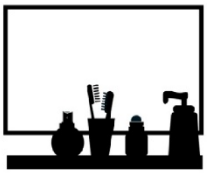
Resident: front view

Assistance with personal grooming when needed



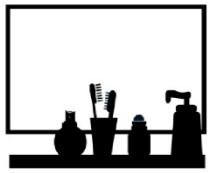
Family: front view

Assistance with personal grooming when needed



Staff: front view

Assistance with personal grooming when needed



Resident: back view

- Applying makeup
- Shaving
- Brushing hair
- Washing hair

Family: back view

- Applying makeup
- Shaving
- Brushing hair
- Washing hair

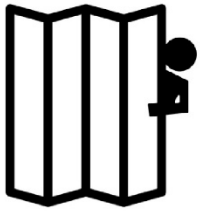
Staff: back view

- Applying makeup
- Shaving
- Brushing hair
- Washing hair

Privacy

Resident: front view

My privacy is respected

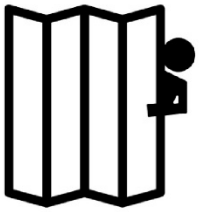


Family: front view

My family member's privacy is respected

Staff: front view

Residents' privacy is respected



Resident: back view

- When showering or bathing
- When getting dressed
- When in my room

Family: back view

- When showering or bathing
- When getting dressed
- When in their room

Staff: back view

- When showering or bathing
- When getting dressed
- When in their room

Repositioning

Resident: front view

Assistance with repositioning when needed

Family: front view

Assistance with repositioning when needed

Staff: front view

Assistance with repositioning when needed

Resident: back view

- Turning in bed
- Repositioning to increase physical comfort
- Help getting in and out of bed

Family: back view

- Turning in bed
- Repositioning to increase physical comfort
- Help getting in and out of bed

Staff: back view

- Turning in bed
- Repositioning to increase physical comfort
- Help getting in and out of bed

Resident decision-making

Resident: front view

Involvement in making decisions about my care

Family: front view

My family member is involved in making decisions about their care

Staff: front view

Residents are involved in making decisions about their care

Resident: back view

- I am provided with options about my care
- My views and opinions are listened to

Family: back view

- My family member is provided with options about their care
- Their views and opinions are listened to

Staff: back view

- Residents are provided with options about their care
- Residents' views and opinions are listened to

Resident Information

Resident: front view

I am informed about my medical care

Family: front view

My family member is informed about their medical care

Staff: front view

Residents are informed about their medical care

Resident: back view

- The purpose and results of blood tests
- Information about medication

Family: back view

- The purpose and results of blood tests
- Information about medication

Staff: back view

- The purpose and results of blood tests
- Information about medication

Respect

Resident: front view

Care staff treat me with respect

Family: front view

Care staff treat my family member with respect

Staff: front view

Residents are treated with respect

Resident: back view

- Care is provided in a respectful manner
- Care is provided in a way that maintains dignity

Family: back view

- Care is provided in a respectful manner
- Care is provided in a way that maintains dignity

Staff: back view

- Care is provided in a respectful manner
- Care is provided in a way that maintains dignity

Seating choice

Resident: front view

I can choose where to sit during group activities

Family: front view

My family member can choose where to sit during group activities

Staff: front view

Residents can choose where to sit during group activities

Resident: back view

- In the activity room
- During special events
- During mealtimes

Family: back view

- In the activity room
- During special events
- During mealtimes

Staff: back view

- In the activity room
- During special events
- During mealtimes

Skin care

Resident: front view

Skin care is provided when needed

Family: front view

Skin care is provided when needed

Staff: front view

Skin care is provided when needed

Resident: back view

- Skin is kept moisturised
- Pressure ulcer prevention
- Assistance with corns, calluses, and blisters

Family: back view

- Skin is kept moisturised
- Pressure ulcer prevention
- Assistance with corns, calluses, and blisters

Staff: back view

- Skin is kept moisturised
- Pressure ulcer prevention
- Assistance with corns, calluses, and blisters

Spiritual activities

Resident: front view

Opportunities to engage in spiritual activities

Family: front view

Opportunities to engage in spiritual activities

Staff: front view

Opportunities for residents to engage in spiritual activities

Resident: back view

- Religious activities
- Attend place of worship
- Space to pray

Family: back view

- Religious activities
- Attend place of worship
- Space to pray

Staff: back view

- Religious activities
- Attend place of worship
- Space to pray

Social activities

Resident: front view

Variety of social and leisure activities offered

Family: front view

Variety of social and leisure activities offered

Staff: front view

Residents' are offered a variety of social and leisure activities

Resident: back view

- Knitting groups
- Trips or outings
- Bingo
- Reading a book
- Personal interests

Family: back view

- Knitting groups
- Trips or outings
- Bingo
- Reading a book
- Personal interests

Staff: back view

- Knitting groups
- Trips or outings
- Bingo
- Reading a book
- Personal interests

Staff knowledge

Resident: front view

Staff are knowledgeable about my medical care

Family: front view

Staff are knowledgeable about my family member's medical care

Staff: front view

Staff are knowledgeable about residents' medical care

Resident: back view

- Knowledge about medical conditions
- Knowledgeable of care plans

Family: back view

- Knowledge about medical conditions
- Knowledgeable of care plans

Staff: back view

- Knowledge about medical conditions
- Knowledgeable of care plans

Toileting

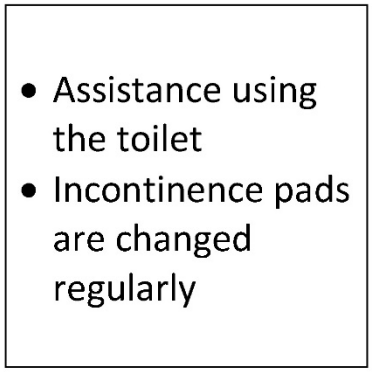
Resident: front view

Family: front view

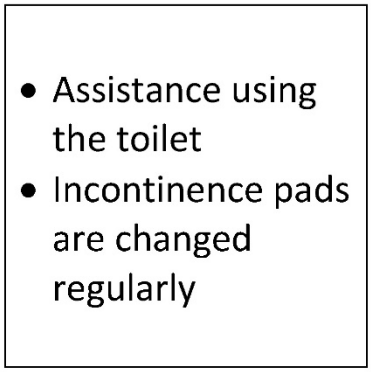
Staff: front view

Resident: back view

Family: back view



Staff: back view



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Appendix F: Post-sorting interview guide

1. Looking over your completed grid, is there anything you want to change? Or are you happy with this as your final order?
2. Is there anything you thought was missing from the card deck? Any aspects of care that I don't have a card for?
3. Ask participants about the placement of various cards:
    a. Start with those ranked as most important, followed by least important, and then cards in the middle of the Q sort gird.
    b. Build on the think aloud task—what did participants speak about during the card sorting activity? Did they have any strong reactions to cards? Were there any cards participants had a particularly slow or quick sorting response to?
    c. Ask participants if there are any other cards they want to talk about.

Appendix G: Semi-structured interview guides

Guide for staff member participants

1. At the beginning of each shift, how do you determine what your priorities are for that day?
2. How might your priorities change over the course of the day? What makes them change?
3. What things prevent you from attending to high-priority activities?
4. When you don't have enough time to complete all your required work in a shift, how do you manage your priorities?
5. What strategies do you use to make sure that care tasks that aren't carried out on time get completed?
6. How do you think your care priorities compare to the priorities of residents?
7. How do you think your care priorities compare to the priorities of residents' family members?
8. Is there anything else you want to talk about regarding the care you provide or care prioritisation?

Guide for family member participants

1. Do you ever talk to your [resident relationship, e.g., mum] about your care priorities?
2. How do you think your care priorities compare to your [resident relationships]'s priorities?

   Prompts:

   What do you think their priorities are?

   How do you think your priorities differ from theirs?

   How do you think your priorities are similar to theirs?

   Can you provide any examples?
3. Do you ever talk to staff members or facility management about your care priorities?
4. What do you think staff members'/management's priorities are regarding residents' care?
5. Can you think of any examples, now or in the past, of when your priorities weren't met that you'd be happy to talk to me about?
6. When your priorities aren't met, how does this make you feel?
7. What do you do when your priorities aren't met?

Prompt:

What would you do if you ever you found your priorities weren't being met?

8. Is there anything else you want to tell me about your priorities or your [resident relationship]'s care in general?

Guide for resident participants

1. Do you ever talk to your family about your care priorities?
2. How do you think your care priorities compare to the priorities of your family?

   Prompts:

   What do you think their priorities are for your care?

   How do your priorities differ from theirs?

   How are your priorities similar to theirs?

   Can you provide any examples?
3. Do you ever talk to carers, nurses or facility management about your care priorities?
4. What do you think staff members'/management's priorities are regarding residents' care?
5. Can you think of any examples, now or in the past, of when your priorities weren't met that you'd be happy to talk to me about?
6. When your priorities aren't met, how does this make you feel?
7. What do you do when your priorities aren't met?

   Prompt:

   What would you do if you ever you found your priorities weren't being met?
8. Is there anything else you want to tell me about your priorities or your care in general?

Appendix H: Demographic questionnaire

Age:	
Gender:	
Self-rated health:	**Select one option** Poor Fair Good Very Good Excellent
Job title (staff members only):	
Length of time working/living/or having a relative live at the current RAC organisation:	