







# Australian residential aged care home staff experiences of implementing an intervention to improve palliative and end-of-life care for residents: A qualitative study

Srivalli Vilapakkam Nagarajan BE, MES, Cert IV TAA, EdD<sup>1,2</sup>  | Christopher J. Poulos MBBS (Hons), MSc, PhD, FAFRM (RACP)<sup>3,4</sup>  | Josephine M. Clayton MBBS, PhD, FRACP, FACHPM<sup>1,2</sup>  | Mustafa Atee BPharm, PGDipClinPharm, MPharm (ClinPharm), PhD<sup>5</sup>  | Thomas Morris BA(Psych), DPsych (Clinical Neuropsychology)<sup>6</sup>  | Melanie R. Lovell MBBS, PhD, FRACP, FACHPM<sup>1,2</sup> 

<sup>1</sup>The Palliative Centre, HammondCare, Greenwich Hospital, Sydney, New South Wales, Australia

<sup>2</sup>Sydney Medical School, Faculty of Medicine and Health, The University of Sydney, Sydney, New South Wales, Australia

<sup>3</sup>Centre for Positive Ageing, HammondCare, Sydney, New South Wales, Australia

<sup>4</sup>School of Population Health, University of New South Wales, Sydney, New South Wales, Australia

<sup>5</sup>The Dementia Centre, HammondCare, Osborne Park, Western Australia, Australia

<sup>6</sup>The Dementia Centre, HammondCare, St Leonards, New South Wales, Australia

## Correspondence

Srivalli Vilapakkam Nagarajan, The Palliative Centre, HammondCare and Northern Clinical School, Sydney Medical School, University of Sydney, 97-115 River Road, Greenwich, NSW 2065, Australia.

Email: [svilapakkamnagarajan@hammond.com.au](mailto:svilapakkamnagarajan@hammond.com.au)

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## Abstract

Access to high-quality and safe evidence-based palliative care (PC) is important to ensure good end-of-life care for older people in residential aged care homes (RACHs). However, many barriers to providing PC in RACHs are frequently cited. The Quality End-of-Life Care (QEoLC) Project was a multicomponent intervention that included training, evidence-based tools and tele-mentoring, aiming to equip healthcare professionals and careworkers in RACHs with knowledge, skills and confidence in providing PC to residents. This study aims to understand: (1) the experiences of healthcare professionals, careworkers, care managers, planners/implementers who participated in the implementation of the QEoLC Project; and (2) the barriers and facilitators to the implementation. Staff from two RACHs in New South Wales, Australia were recruited between September to November 2021. Semi-structured interviews and thematic data analysis were used. Fifteen participants (seven health professionals [includes one nurse, two clinical educators, three workplace trainers, one clinical manager/nurse], three careworkers and five managers) were interviewed. Most RACH participants agreed that the QEoLC Project increased their awareness of PC and provided them with the skills/confidence to openly discuss death and dying. Participants perceived that the components of the QEoLC Project had the following benefits for residents: more appropriate use of medications, initiation of timely pain management and discussions with families regarding end-of-life care preferences. Key facilitators for implementation were the role of champions, the role of the steering committee, regular clinical meetings to discuss at-risk residents and mentoring. Implementation barriers included: high staff turnover, COVID-19 pandemic, time constraints, perceived absence of executive sponsorship, lack of practical support and systems-related barriers. The findings underline the need for strong leadership, supportive organisational culture and commitment to the implementation of processes for improving the quality of end-of-life

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care. Furthermore, the results highlight the need for codesigning the intervention with RACHs, provision of dedicated staff/resources to support implementation, and integration of project tools with existing systems for achieving effective implementation outcomes.

#### KEYWORDS

advance care planning, aged care providers, careworkers, palliative care, Palliative Care Needs Round, Quality End-of-Life Care, residential aged care homes

## 1 | INTRODUCTION

Residential aged care homes (RACHs) are important places of care where many older people with dementia and other chronic illnesses live as they approach death (Cameron et al., 2021). In 2019, 29.5% of all deaths in Australia and 50.1% of deaths of people aged 85 and over were in a RACH (Australian Bureau of Statistics, 2021). Past studies on RACHs have highlighted the need to improve access to quality and safe palliative care (PC) to older people in RACHs (Horey et al., 2012; Leong & Crawford, 2018).

A palliative approach to care considers residents' dying as a natural process and promotes resident empowerment and having their rights be respected at the end-of-life, while maintaining a focus on comfort (Froggatt et al., 2011). While there has been substantial growth and development of PC resources, there still remain barriers to adequate PC for residents in Australian RACHs (Hardy et al., 2008; Phillips et al., 2006; Veal et al., 2018). In 2020, the Australian Royal Commission into Aged Care Quality and Safety stated that fragmented PC for older people in RACHs creates unnecessary distress for both the dying resident and family members (Australian Royal Commission into Aged Care Quality and Safety, 2021). Palliative Care Australia's Palli8 plan recommends the need for primary PC skills to be integrated into the general healthcare workforce (Palliative Care Australia, 2020).

Palliative care education and training for healthcare professionals and careworkers have been shown to improve knowledge, attitudes, self-efficacy, confidence and communication skills (Iida et al., 2021; Lamppu & Pitkala, 2021; Spacey et al., 2020). In Canada, well-tailored PC education has been successful in reducing emergency department use at the end-of-life, improving support for families and increasing family involvement in the care of residents (Kaasalainen et al., 2020). The Supportive Hospice Aged Residential Exchange intervention indicates that education improves staff support to families through the end-of-life journey in New Zealand (Frey et al., 2020). Ahlström et al. (2018) describe a four-stage model of an educational intervention (development, feasibility and piloting, evaluation and implementation) used in Sweden for understanding effectiveness of implementing knowledge-based PC in nursing homes. A stepped-wedge randomised control trial conducted in Australia revealed that 'Needs Rounds' with case-based education to support RACHs is associated with a better quality of death and dying (Forbat et al., 2020; Liu et al., 2020). Similarly, positive patient outcomes, such as timely commencement of PC and responsive pain

### What is known about this topic

- There are several challenges in implementing quality palliative care and end-of-life care in residential aged care homes in Australia.
- Evidence for effective models of delivering palliative care training and provision of supporting tools/resources for staff in residential aged care homes is still lacking.
- Evidence on outcome monitoring, process and implementation evaluation are also limited in residential aged care homes.

### What this paper adds

- This paper provides evidence to suggest that healthcare professionals and careworkers in RACHs can be trained to identify and discuss residents at risk of death and deterioration and screen residents for palliative care needs.
- Improvements in patient outcomes were reported by study participants including use of appropriate medications, initiation of timely pain management, discussion with families regarding end-of-life care issues and avoiding unnecessary hospitalisations.
- Understanding and addressing barriers and facilitators to implementation in RACHs is key to successful implementation and long-term practice change.

management, have been demonstrated in PC services engaged with the Palliative Care Outcomes Collaboration [PCOC] (2022). Using such evidence-based approaches is not only essential to improve RACH staff confidence to deliver PC but also necessary to ensure proper levels of quality care of residents.

The aim of a project titled 'Quality End-of-life Care' (QEoLC) described in this paper is to pilot evidence-based approaches to improve the quality of palliative and end-of-life care for older people in Australian RACHs. A qualitative evaluation of the intervention was conducted because it allows researchers to gain a thorough and in-depth understanding of participants' perspectives, which can greatly assist with understanding pros and cons of different components of the intervention (Rørtveit et al., 2020) and in improving

efficacy, sustainability, and translation into routine practice (Claus et al., 2019).

This study reports on two aspects of the implementation of the QEoLC Project, aiming to understand: (1) the experiences of healthcare professionals, careworkers, care managers, planners and implementers when participating in the QEoLC Project; and (2) the barriers and facilitators to the implementation of the project.

## 2 | METHODS

### 2.1 | Study design

A qualitative study using semi-structured interviews was undertaken with healthcare professionals, careworkers, care managers, planners and implementers to explore their experiences with implementing different components of the intervention, including their perspectives about the feasibility, acceptability and utility of different components of the intervention and its impact on people in RACHs. Study reporting is based on the Consolidated Criteria for Reporting Qualitative Health Research (Tong et al., 2007).

### 2.2 | Description of the QEoLC Project intervention

The QEoLC Project included five intervention components: (i) education and training to improve healthcare professionals and careworkers' knowledge, skills, confidence and attitude towards PC; (ii) PC Needs Rounds to identify residents at risk of dying without a plan and high symptom burden; (iii) Program of Experience in the Palliative Approach (PEPA) to ensure healthcare professionals and careworkers learn from experienced specialist PC staff; (iv) routine clinical assessment and collection of PCOC data with support from a nurse mentor; and (v) tele-mentoring from a specialist PC nurse mentor (Table 1 provides detailed information). Healthcare professionals and careworkers from participating sites were invited to attend the monthly training led by a PC specialist. Training methods included didactic presentations, case studies and panel discussions.

A steering committee was established to provide leadership and direction to the QEoLC Project implementation team. The steering committee included General Manager (Health), Senior Staff Specialist (PC, Health), Director Community PC, Residential Regional Managers (participating sites), RACH Managers (participating sites), Service Manager (Palliative Centre), Project Development Manager (Palliative Centre), Clinical Nurse Educator Project Lead (Palliative Centre), Clinical Governance Advisor (Residential), Quality, Safety and Risk Head of Residential and a Research Fellow (Health). The implementation team consisted of a service development manager (0.2 full time equivalent [FTE]) and clinical nurse mentor (0.4FTE) who were responsible for managing the implementation of the QEoLC Project by working in partnership with care managers to build PC capacity within RACHs.

Readiness assessment for implementation of PCOC in Residential Aged Care (PCOC, 2020) was completed by all participating sites and readiness of sites for implementation was documented. This included allocation of leaders, putting processes in place to support routine assessment, orientation and ongoing education plan and a data entry, extraction and quality plan. Any action items or specific gaps such as training needs that needed to occur at the site pre-implementation of PCOC were noted.

### 2.3 | Recruitment and sample

Two RACHs in New South Wales, Australia, were nominated to participate in the QEoLC Project. One RACH was a rural/regional site, and another was located in metropolitan Sydney. Purposive sampling was used to target participants suited for this study. Healthcare professionals, careworkers and care managers from the two participating sites and planners/implementers of the QEoLC Project were eligible to participate in the study. Other staff members from the two RACH sites were excluded as they were not the target study participants. Potential participants were approached by a qualitative researcher via email once they had responded to the expression of interest invitation. Only participants who had responded to the expression of interest process were contacted by the researcher regarding participation in interviews. No data were received by the research team from other potential participants. The researcher had no previous relationship with potential participants. Potential participants were sent an information letter and a copy of the consent form with a request to schedule an interview time. Before commencing the interview, the interviewer answered any questions and confirmed verbal consent for participating in the interview and for audio-recording of the interview.

### 2.4 | Interview design

The interview guide (Appendix S1) used ideas from the RE-AIM Framework (Glasgow et al., 2019) to understand the extent to which the QEoLC Project was implemented across different RACHs, staff and residents. The RE-AIM Framework consists of five elements, namely: reach; effectiveness; adoption; implementation; and maintenance (Glasgow et al., 2019). Factors that affect reach of the QEoLC Project were explored in the interview questions included in the guide. Effectiveness questions explored both positive and negative consequences of different components of the project intervention. Adoption-related questions explored participants perceptions about decision-makers in the RACHs, the value the QEoLC Project will add to their service; and the capacity, resources and expertise necessary to deliver the QEoLC Project. Implementation questions explored the extent to which the QEoLC Project was delivered as intended, including the time, cost and adaptations made to the project and implementation strategies. Maintenance questions explored the extent to which the QEoLC Project will be integrated to become part of the routine RACH practices and policies.

TABLE 1 Description of the multicomponent intervention of the QEOLC project

QEOLC project intervention components	Brief description	Rationale for inclusion of this component in the project
Education and training	The education and training manual entitled “palliative care quality end-of-life resource book” (HammondCare, 2020) was used. A toolkit was provided containing the resources. The education contains 10 modules, including: introduction and palliative care (PC); assessing the deteriorating resident and acknowledging when a palliative approach is needed; communication and advance care planning; symptom control at the end of life; pain; delirium and frailty; person centred care in aged care; palliative approach for residents living with dementia; complex palliative care in aged care; and grief, bereavement and self-care. On average, each education and training session was 90min. Intervention participants, including healthcare professionals and careworkers, were invited to attend the monthly training led by a palliative care specialist. Training methods included didactic presentations, case studies and panel discussions	These topics have been identified as needed for quality palliative care in RACH
Palliative Care Needs Rounds	Palliative care Needs Rounds were organised to discuss residents at the RACHs. The “Surprise Question” and the “Supportive and Palliative Care Indicators Tool (SPICIT)” (Highet et al., 2014) were used to identify patients suitable for discussion. The RACH staff were supported to identify and focus on residents most in need of palliative care plans (Forbat et al., 2018)	This component was chosen based on the evidence from the literature regarding positive impact of PC Needs Rounds on identification of at-risk residents and early planning for end-of-life care including advance care planning (Johnston et al., 2019)
PCOC (2022; Eagar et al., 2010)	Participants received education and training on how to collect PCOC datasets. The PCOC RACH data collection is captured at three levels: resident-level; care-level; and assessment-level. Demographic and interdisciplinary palliative care information are collected at the resident-level. The care-level information include identifying resident requiring palliative care; date resident started palliative care; interruptions to resident's palliative care; resident preferences for place of care and death; and date and place of death. The assessment-level information describes the clinical condition of the resident, including changes in the resident's needs	PCOC Wicking model applies a national outcomes and benchmarking program in palliative care to RACH. It embeds routine standardised assessment and response protocols to be used with each resident
Program of Experience in the Palliative Approach (PEPA) placement (Program of Experience in the Palliative Approach, 2021)	The clinical nurse educator facilitates placing participants on Program of Experience in the Palliative Approach (PEPA). The PEPA placement will focus on enhancing the skills, knowledge and experience of healthcare professionals and careworkers in providing palliative care for residents in aged care facilities. Through the PEPA placement, participants will understand the principles of palliative care; develop skills to identify the palliative care needs of residents; have access to resources to provide optimal palliative care in RACHs; and identify appropriate coping strategies to deal with issues. This practical component did not go ahead due to the challenges presented by the pandemic	This component was chosen to build specialist capacity in a generalist workforce through practical placements. Furthermore, the organisation had the ability to host PEPA placements at three of its palliative care in-patient units
Mentoring	A dedicated palliative care nurse mentor assisted participants with resolving palliative care-related questions regarding residents during the project duration. Support was available through email, Microsoft Teams chat, text messages and/or phone call. Case-based mentorship was provided during needs rounds discussion facilitated by the mentor and included advice about quality improvement activities, and pain management. The mentor also provided refresher training during implementation meetings about palliative care assessment and managing distressing symptoms. The mentor attended selected site-based clinical meetings where participants discussed their concerns about the residents and provided necessary advice	Due to the challenges of conducting face-to-face consultations or have onsite presence during the pandemic, support for RACH staff was provided through tele-mentoring sessions. Telementoring assisted with establishing rapport and relationship building between the trainer and participating RACH staff, and ensured staff had opportunities to clinically debrief on complex patient cases or PC-related questions

Abbreviations: PC, Palliative Care; PCOC, Palliative Care Outcomes Collaboration; PEPA, Program of Experience in the Palliative Approach; QEOLC, Quality End-of-Life Care; RACHs, residential aged care homes; SPICIT, Supportive and Palliative Care Indicators Tool.

## 2.5 | Data collection

A total of 15 semi-structured individual interviews were conducted via telephone (due to COVID-19 pandemic), by a single interviewer ([SVN] with a doctoral degree and more than 10 years' experience as a qualitative researcher) during the last 3 months of the intervention. All interviews were audio-recorded and transcribed verbatim using a transcription service. Interview duration ranged between 30 and 70 min. Additional field notes were made by the interviewer to capture participant perceptions during data collection to re-confirm participant responses at different points and/or for seeking examples of any key issues presented in their responses to certain questions. Pilot testing of the interview guide was not conducted due to time constraints and COVID-19-related barriers/challenges. However, the research questions were codesigned, revised and reviewed by members of the research team with input from health professionals working in the RACH settings.

## 2.6 | Data analysis

A qualitative descriptive approach (Bradshaw et al., 2017; Sandelowski, 2000) was used because it would assist with capturing various elements associated with a phenomenon in a holistic manner directly from participants who experienced it. The main goal is to develop a comprehensive summary of participant experiences (not theory generation) by staying close to the data and supported by quotes to illustrate meanings participants attribute to a phenomenon or an event. (Bradshaw et al., 2017; Sandelowski, 2000).

Steps of inductive thematic analysis were conducted according to the theoretical framework proposed by Braun and Clarke (2006). These included familiarisation with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the analysis report. Transcripts were imported into NVivo. Inductively, immersion in the data was achieved by listening to each audio-recording multiple times, as well as reading and re-reading transcripts line-by-line to gain in-depth understanding. Several codes were generated across the dataset by utilising open coding. Once a code was identified, it was reused where relevant to capture similar ideas in the remaining interview data. Related codes were combined to generate higher level themes which represented all data relevant to each theme. A selection of transcripts was reviewed collaboratively by the evaluation team researchers (with expertise in PC [ML, JMC], restorative care [CP], dementia and aged care [MA, TM]) and alignment of codes and themes were discussed over 3–4 evaluation meetings during October–December 2021. Data saturation was confirmed when no new themes emerged after the last interview. In relation to the number of interviews relevant for this study, we believe that we have achieved saturation in our data as discussed in Guest et al. (2006). Agreement was obtained regarding a final thematic structure. No member checking of transcripts was conducted with interviewees due to tight project

timelines and potential burden for healthcare professionals during COVID-19 pandemic.

Trustworthiness of the research was ensured through prolonged engagement with the data by the researchers, use of experts from the relevant fields during collaborative analysis /interpretation of data (credibility), detailed description of intervention context/design and profile of participants (transferability) and discussion of strengths and limitations of the study.

## 2.7 | Ethical considerations

Ethical approval was obtained from the Northern Sydney Local Health District Human Research Ethics Committee (Project Number: 2021/ETH01286). Participation in the interview was voluntary. Only de-identified interview data were shared for analysis purposes. Anonymity was ensured by removing any participant information that might lead to identification from this manuscript. Verbal consent from all participants was recorded on the audio-recording at the start of the interview as per the ethics approval. The interviewer recorded the time and date the verbal consent was collected from the participant.

## 3 | RESULTS

Fifteen participants who met the inclusion criteria were included in the study. Demographic characteristics of participants are summarised in Table 2. A total of 10.45 h of interview data were analysed.

Data analysis revealed 5 major themes and 14 subthemes (see Table 3).

### 3.1 | Theme 1: Preparation of aged care site and staff key to achieving engagement

Participants described their willingness to participate in the project, reasons for engagement and factors in their view that hindered with their engagement. Engagement with intervention activities was seen to be good at the commencement but decreased considerably as time progressed. Staff engagement was better at the sites where the RACH managers worked with clinical care managers and or engaged nurses in planning/promoting the Project. Attendance at tele-education was poor but the uptake of PC Needs Rounds was seen to be better at one site (RACH-1). Reasons for engagement included staff passion for providing PC, strong beliefs that this would improve resident care, importance of holistic resident care including benefits of palliative/end-of-life care, ability to communicate openly regarding death/ dying with peers, general practitioners (GPs) and families, willingness to identify problems, resident advocacy and gaining knowledge through training to embed intervention into existing process.

TABLE 2 Interview participant characteristics (n = 15)

Characteristics	Participants, n (%)
Sex	
Male	3 (20.0)
Female	12 (80.0)
Role	
RACH/care services manager	3 (20.0)
Care worker	3 (20.0)
Nurse	1 (6.7)
Clinical nurse educator	2 (13.3)
Project manager	1 (6.7)
Workplace trainer	2 (13.3)
Workplace trainer+nurse	1 (6.7)
Assistant manager	1 (6.7)
Clinical manager+nurse	1 (6.7)
Experience working at site/organisation	
<1 year	1 (6.7)
1–2 years	8 (53.3)
>2–3 years	1 (6.7)
>3–5 years	3 (20.0)
>5 years	2 (13.3)
Employment	
Full-time	10 (66.7)
Part-time	5 (33.3)
Location	
Metro	6 (40.0)
Rural/regional	9 (60.0)
Site	
RACH-1a	6 (40.0)
RACH-1b	3 (20.0)
RACH-2	3 (20.0)
Organisation	3 (20.0)
Engagement with intervention	
Tele-education	10 (66.7)
PCOC implementation	14 (93.3)
PC Needs Rounds	9 (60.0)
PEPA placement	0 (cancelled due to the pandemic)

Abbreviations: 1a, 1b, subsites within RACH-1; HCPs, Healthcare Professionals; PC, Palliative Care; PCOC, Palliative Care Outcomes Collaboration; PEPA, Program of Experience in the Palliative Approach; RACHs, residential aged care homes.

Staff shortages was one of the top reasons cited as affecting staff engagement with the intervention. Reasons such as staff leave, staff shift changes, new/inexperienced staff, high staff turnover and lack of backup staff to cover participants attending training were described. As a result, only a limited number of careworkers and registered nurses engaged with the intervention. Many participants reported that their site priorities changed due

TABLE 3 Themes and subthemes from data analysis

Themes	Subthemes
1. Preparation of aged care site and staff key to achieving engagement	<ul style="list-style-type: none"> <li>• Willingness to engage</li> <li>• Achieving desired reach and engagement</li> </ul>
2. Perceived improvements in staff knowledge and confidence to identify residents at risk of death/deterioration and screening for palliative care needs	<ul style="list-style-type: none"> <li>• Increased awareness of palliative care in end-of-life care</li> <li>• Ability to talk openly regarding dying</li> <li>• Ability to screen for palliative care needs</li> </ul>
3. Staff-perceived impact of the intervention on residents and families	<ul style="list-style-type: none"> <li>• Achieving positive outcomes for residents</li> <li>• Discussion with families regarding end-of-life care issues</li> </ul>
4. Barriers and facilitators to implementing the intervention	<ul style="list-style-type: none"> <li>• Lack of organisational support</li> <li>• Time-related barriers</li> <li>• Workforce-related barriers</li> <li>• Site-related facilitators</li> <li>• Project-related facilitators</li> </ul>
5. Participant recommendations for future implementation	<ul style="list-style-type: none"> <li>• Training-related improvements</li> <li>• Organisational support for implementation</li> </ul>

to the COVID-19 pandemic. As a result, staff engagement with the project was limited. Challenges included: staff stress and fatigue, staff taking time off to care for their own families and the inability to deliver in-person training/onsite presence for follow up discussions.

Trainers' (tele-education) lack of understanding of PC in aged care settings and differences in support mechanisms available for provision of PC between hospital and aged care settings were also described. Some participants reported that their expectations/personal goals for being involved in the intervention was not met and this led to disappointment (e.g. cancellation of PEPA placement). Scheduling of education sessions around mid-day made it challenging for staff to attend as it overlapped with busy work periods.

A few participants stated that the consultation with the participating sites was minimal during the selection process and felt that the sites did not have a say in whether they were interested or not in participating in the intervention. Lack of consultation regarding appropriate time for intervention kick-off was perceived to be a barrier to staff engagement. Some participants stated that their current workplace systems and process were not compatible with requirements of the intervention. As a result, participants experienced a burden of redundant paperwork, manual processes and add-on workload without real benefit.

Better preparation of staff at the participating sites through (a) comprehensive orientation; (b) clear communication of purpose, expected benefits to staff and residents; (c) tailored education/training to meet individual site needs; and (d) provision of adequate site-based staffing/resources to enable participation in training and other components of the intervention were described as crucial elements for achieving good reach and staff engagement. Some participants



suggested that the training (currently nurse-focussed) should be customised to careworkers' learning needs for better reach/engagement. Uptake of intervention tools was much better when participants understood the purpose of the tools, their benefits and how they could be embedded within their workflow. Participants suggested practical ways to assist the sites achieve good reach/engagement including ensuring adequate staffing/resources are available to enable attendance/participation in training, careful planning and scheduling of training times after consultation with the site (avoiding busy times, after work, scheduling dedicated times for education), codesigning intervention processes with RACHs including integration of tools into routine workflow, provision of incentives and promotion of the project via posters or staff meetings. Some participant quotes are listed in [Table 4](#).

### 3.2 | Theme 2: Perceived improvements in staff knowledge and confidence to identify residents at risk of death/deterioration and screen for PC needs

Improvements described by participants included self-perceived confidence to undertake tasks such as identifying residents at risk of deterioration and death using the intervention tools, talking about "dying" in an open manner and advocating for residents with confidence. Some participants found that using PCOC tools increased their awareness of PC in end-of-life care, improved their confidence in initiating ACP discussions, identifying at-risk residents and screening residents for PC needs in a structured manner. PCOC tools (colour-coded) assisted them to visualise resident outcomes, understand progress/decline of a resident over a period of time and predict signs of deterioration. Careworker participants used PCOC as a communication tool to explain resident symptoms to their supervisors (nurses/managers). Improvements in their skills for identification of symptoms (using Symptom Assessment Scale [SAS]) such as pain, initiating review of medications and discussion regarding provision of appropriate pain management were described. Participants felt that their previous understanding of palliation (death-focussed)

shifted to focus on resident comfort and needs of families after starting to use the assessment tools. Staff were more aware about avoiding unplanned hospital admissions including helping families understand the goal is providing comfort and palliation to their loved ones. PCOC (SAS) tool and PC Needs Rounds were perceived to be the most useful aspects of the intervention by participants as they assisted with monitoring of identified residents (PCOC) and triggering case-based conversations regarding managing residents' needs (Needs Round). [Table 5](#) lists some participant quotes for theme 2.

### 3.3 | Theme 3: Staff-perceived impact of the intervention on residents and families

Participants described positive outcomes for residents as a direct result of the intervention. Several examples of achieving better pain management outcomes for residents were provided. This was described as a result of staff initiating medication reviews, reviewing inappropriate/unnecessary medications and reducing polypharmacy, evaluating pain charts, following up on action items and timely escalation of any issues to supervisors. Resident outcomes that were perceived to have improved included: better pain relief measures, reductions in unnecessary medications and provision of appropriate pain medications in a timely manner. A pro-active approach to crisis medication after using PCOC tools with deteriorating residents was also reported. Participants also reported that the intervention prompted them to share resident-related information with other colleagues at their workplace and assisted with obtaining necessary referrals or medications for the resident in a timely manner.

Additionally, it was reported that the intervention prompted engagement with families to discuss resident/family end-of-life care wishes, advance care planning (ACP), and preferred place of death. Staff reported that following the intervention they persevered in their conversations with families to help them understand that the goal is about ensuring comfort and palliation for their loved one. As a result, participants felt that residents and families were not burdened by any unplanned hospital admissions

TABLE 4 Interview participant quotes for subthemes related to theme 1: Preparation of aged care site and staff key to achieving engagement

Subtheme	Quotes
Willingness to engage	<p><i>I suppose everyone's fire in the belly. I suppose the passion for palliative care is still there but I think the telecommunication thing just wasn't as targeted to the staff as we required. [P3]</i></p> <p><i>I would say that there is better reach in the careworkers compared to the RNs because the careworkers only have to do the symptoms ... Whereas the RNs have to do most of the time the weekly version of doing the complete assessment.... [P11]</i></p> <p><i>I think it was a double blow because of COVID ... we lost a lot of staff to care for their families or to be isolated because there were close contacts and we had no backfill. [P12]</i></p> <p><i>As far as the monthly educations, I just found it really hard—it's not that the staff did not want to be engaged in it and they did not want to go to those education sessions, it was just really hard to take off the floor with the shortage of staff in residential care. [P9]</i></p>
Achieving desired reach and engagement	<p><i>So, I think the care staff, once they understood the purpose of the SAS [tool], were very good and diligent at doing it. Most of the registered nurses were very good at doing the PCOC, the registered nurse assessment with the RUG-ADLs and incorporating the SAS. I think they understood the purpose of that. [P12]</i></p>

TABLE 5 Interview participant quotes for theme 2: Perceived improvements in staff knowledge and confidence to identify residents at risk of death/deterioration and screening for palliative care needs

Subtheme	Quotes
Increased awareness of palliative care in end-of-life care	<i>I'm going to speak from the care staff to begin with ... doing those SAS scores daily, coming to me or the managers whenever they thought that a resident was deteriorating, and they needed to go onto PCOC. [P9]</i> <i>...we are now really good in identifying that this is really happening, that this is actually additional tool for us to determine a resident who is deteriorating or not or if they improve... [P7]</i>
Ability to talk openly regarding dying	<i>I also feel that saying the word dying now is more beneficial instead of how easy it is to pussyfoot around it and saying, oh, we do not talk about that person if that person is going to die and we can use those words. I think that helped. [P1]</i> <i>I can see a huge difference. ...before, it was sort of, oh, do we have to talk about death and dying. Now, they have empowered it, and they have moved on ... It's been a positive impact. [P8]</i>
Ability to screen residents for palliative care needs	<i>...because we have provided a structured approach ... the idea is that every resident is screened. By doing that, the screening and the re-evaluation, you are not missing anybody. Everybody is considered for palliative care, and whether they would be a candidate to benefit from palliative care. So, I think the structured approach is really key to that because it's not ad hoc. It's just everybody is screened. [P4]</i> <i>But with the intervention we were able to provide more pain management, which was like, even the staff were motivated and educated to identify the pain; different ways of identifying pain, so always pain was addressed more after implementing the PCOC scheme. [P5]</i> <i>I can honestly say that since we have had the PCOC tool there, we have had a lot more daily discussions around pain management. It's come up once a week as well as daily in a clinical meeting with management and the RN. Things are getting reported; ...we seem to be getting on top of it to the duty doctor a lot quicker [P10]</i> <i>I think the most helpful aspect of the interventions were the palliative Need Rounds. I think once we got them going, they were very useful because it was a time to actually go deep into how we were managing someone and what we could do and what the options were. [P12]</i>

and residents were provided with appropriate end-of-life care and were able to die at the RACH (where this was the preferred place of death).

A few participants (workplace trainer/RACH manager) stated that there were minimal or nil improvements in resident care because of the intervention. These participants reported little impact of the intervention on enabling residents to die in preferred place or unplanned hospital admissions, as the site knew already that most residents wanted to die at the RACH. Table 6 lists selected quotes from participants.

### 3.4 | Theme 4: Barriers and facilitators to implementation

Lack of organisational support, workforce and time-related barriers were described as implementation-specific barriers. Site-related and project-related facilitators that assisted with successful implementation were also described by the participants.

Many participants stated that due to lack of explicit executive sponsorship and commitment to the QEoLC Project and lack of interest/support from the leadership team at the participating site, the intervention was not seen as a priority project by the RACH staff. Several changes in the senior management team were reported during the intervention period. However, some participants stated that once the new executive level staff got involved in the late stages of the intervention, participation at the sites improved. Lack of practical on the ground support for managing resident documentation such as data entry of completed assessment forms was perceived to increase the workload for the participants. Several systems-level

challenges were described: gaps in the understanding of baseline requirements at the sites, lack of site-based needs analysis to identify necessary systems to support the intervention, the absence of clear policies and procedures related to PC and ACP for RACHs, lack of consistent documentation regarding ACP, PC and notes from meeting with families and the absence of integration with existing workplace systems/processes. Additionally, the burden of manual/paperwork was also raised by many participants.

Workforce-related barriers included lack of support from general practitioner (GPs) visiting RACH, lack of GP response to follow-up requests for medication review, limitations in GP knowledge of PC in end-of-life care, GP reluctance to prescribe psychotropic medications and difficulties in scheduling timely GP visits. Inadequate language skills of some non-English speaking careworker staff presented challenges with regard to the collection and documentation of resident data on forms and adherence to the stipulated intervention process. One participant reported that there was high staff turnover at their site as they used students who frequently relocated to regional areas (or other Australian states) to meet their visa requirements. When the staff who were initially trained for implementing the intervention left the site, the newly replaced staff (not trained) did not participate in the implementation.

Some participants reported that setting up the intervention at their RACH was time-consuming and challenging as they were busy with other priorities. In some cases, due to time constraints only SAS tool was completed. Full suite of PCOC assessments/documentation were not done as the nurses were time poor and could not cope with the extra time and workload. Some participants found the tools to be redundant and the paper-based forms were time consuming to complete.



TABLE 6 Interview participant quotes for subthemes related to theme 3: Staff-perceived impact of the intervention on residents and families

Subtheme	Quotes
Achieving resident outcomes through use of appropriate medications and improved staff communication	<i>Outcomes, definitely giving the peace of mind about the care that we were giving ... we have identified through the needs rounds about how much we have polypharmacy here at &lt; Site &gt; and there's a lot of medications that essentially people are coming into the RACH already palliating or in that line, there are a lot of medications that we definitely do not need to be giving our residents. [P3]</i> <i>our staff knows the residents ... when it comes to the dying stage, they get to know that side better, like what to expect and that they are going to have good days, bad days, and by reading their SAS scales ... they have had a bad day here with pain; or they are upset because they are not eating; or, they are have an infection. Then the staff can pick up on that now and can—they can notice that and then they can inform the RN and let them know so that better plans can be put in place. [P1]</i>
Discussion with families regarding end-of-life care issues	<i>The outcome was that the resident died comfortably in the care home, which was an outcome that the team themselves felt great about because they were able to provide good care for this resident towards the end-of-life and not burden this person and their family about getting transferred to hospital unnecessarily, say, emergency, even though we know this person is dying. [P11]</i>

TABLE 7 Interview participant quotes for theme 4: Barriers to implementation

Subtheme	Quotes
Lack of organisational support	<i>I meant the CEO was keen and the residential services manager at the time may or may not have been keen ... then the newer one was very keen, but at the RACH level, the site manager and ops manager, they had no buy-in at all and were disinterested. [P12]</i> <i>As I said, for data entry yes, we were meant to have had a whole lot of support. When we got to the end and we found that it had not been done and then some of the stuff that had been done wasn't completed properly ... We were meant to have had that support and then it did not quite happen as it should have. [P2]</i>
Workforce-related barriers	<i>Well, we need a medical team that are willing to be part of the program and support the program because we do not have doctors on-site ... They kind of come in and out when they can at their leisure ... they are GPs; they are not palliative specialists. They are not very educated about palliative care and a lot of them are very scared to prescribe any kind of psychotropic medications because of all of the new rules and regulations about psychotropic use in RACHs. [P13]</i> <i>...our staff sorry are non-English &lt; overseas &gt; students, they have to redirect to go regional to keep their registration—to keep their—so they can stay in Australia ... So we have a high turnover rate here of new staff. So the staff that received the training at the beginning probably were not here 4 months later. [P13]</i>
Time-related barriers	<i>I think for here on site, again, it's just a time thing. Our RNs are stretched across four cottages with 60 plus residents. Just because it's not reflective on the PCOC paperwork, it does not necessarily mean that things aren't getting escalated and things aren't getting done about it, it's just we have our own systems and processes in place and they are being followed and our RNs purely do not have the time to then go and fill out further paperwork for the PCOC. [P9]</i>

Table 7 lists participant quotes in relation to barriers.

Site and project-related facilitators assisted with successful implementation. Many participants stated that workplace trainers and clinical care managers played an important role in encouraging and motivating careworker/nursing staff to utilise the QEoLC assessment tools, thereby assuming the role of champion at their site. This assisted with the uptake of tools and routine use of some tools such as the SAS tool amongst careworkers. Regular weekly clinical meetings at RACHs provided an alternative platform (to PC Needs Rounds meeting) and facilitated discussions about residents identified as at-risk of death and deterioration or needing a PC assessment.

The steering committee played an important role in guiding the project team and the participating sites to iron out any difficulties with implementing the intervention. Once these steering committee

meetings with executive commitment started to occur, the intervention gained the necessary attention. The committee also assisted with clarifying project goals, outcome measures and accountabilities for the project personnel. Some participants stated that they found the ongoing support and guidance from the dedicated PC nurse mentor to conduct the Needs Round and PCOC training facilitated the implementation of the intervention. See Table 8 for participant quotes regarding facilitators.

When asked about the alignment of the QEoLC Project with the organisational goals and priorities, many participants stated that the Project objectives were well aligned with the strategic goals of their organisation. This could have been a facilitator, but participants did not state this explicitly (only responded to an interview question regarding the alignment of the Project with organisation's goals).

TABLE 8 Interview participant quotes for theme 4: Facilitators to implementation

Subtheme	Quotes
Site-related facilitators	<p>...at each site the workplace trainer was quite instrumental.... I believe their role is all around any sort of training to staff. So, when it came to recruiting care staff to attend the training, especially around implementing the SAS tool, they were—well, especially in &lt;SITE1&gt;. ...They were able to rally the troops. [P4]</p> <p>I think what I think worked well is that every Thursday we have clinical meetings, and we talk about those individuals that are on our PCOC list ... sometimes we remove that person off our PCOC list because we have done so well. [P6]</p>
Project-related facilitators	<p>I think one of the biggest successes in adding the steered committee meetings is just initiating that ... I think that made a huge difference in trying to get traction and progress and being clear of what we are trying to achieve and how we are measuring it. That all came to fruition through the steering committee meetings and accountability became much easier. [P11]</p> <p>[Mentor]'s doing an amazing job and so supportive ... I do not want to run the palliative care needs rounds by myself. Just because I do not have time as manager to run another thing ... So I would love to continue them [palliative needs rounds]... [P3]</p>

### 3.5 | Theme 5: Strategies recommended by participants for future QEOLC project

All participants provided suggestions for future consideration to facilitate effective implementation including better staff uptake of tools and sustaining practice change post intervention. Suggestions included: training-related improvements, ensuring buy-in from the executive team, providing strong leadership and codesigning intervention with the sites, availability of dedicated staff and resources to support implementation and better integration of intervention tools and processes with existing workplace systems and workflow (Table 9).

## 4 | DISCUSSION

This study reports on the experiences of healthcare professionals, careworkers, care managers and planners/implementers who participated in a multicomponent intervention to improve resident care quality at the end-of-life at two RACHs. There were some components of the intervention (e.g. Palliative Care Needs Rounds, Symptoms Assessment Scale used by careworkers) that were perceived by participants to be more useful, feasible and acceptable than others (e.g. tele-education session/weekly PCOC assessment tools for nurses). The study findings suggest that the success of the intervention is highly dependent upon the pre-implementation preparation of RACH staff/sites through training, understanding of existing workplace systems/workflow and codesigning adaptations to workplace practices with input from relevant stakeholders. Provision of dedicated onsite staffing and supporting resources (such as mentoring, support for data entry of assessment forms, dedicated time for staff to attend training) were reported as necessary to support implementation. Importantly, the findings suggest that integrating the intervention-related practice changes into routine care is essential to ensure sustainability. Outcomes of the QEOLC Project, as perceived by participants included: improvements in care staff attitudes and confidence to talk openly regarding dying, improved knowledge and ability to screen residents for PC needs and initiate pain management in a timely manner, better use of appropriate

medications and avoiding unnecessary hospital admissions prior to death. Barriers to implementing the intervention included COVID-19 pandemic, staff shortages, lack of support from GPs, time-related barriers, the absence of explicit executive sponsorship and buy-in from the sites, lack of practical support for implementation and systems-related barriers. Facilitators to implementation included role of the champions at the sites, role of the Project steering committee, tele-mentoring support, effective utilisation of existing site-based clinical meetings to discuss at-risk patients identified through the Project assessments.

Previous studies have shown that education of RACH staff has resulted in improved outcomes for staff (confidence to deliver PC approach) (Liu et al., 2020; Nolan et al., 2008) and improved patient outcomes in relation to meeting end-of-life wishes/preferences of residents (Martin et al., 2016). However, provision of PC training sessions alone was not sufficient in our study, as the participating RACHs struggled to release staff to attend training sessions due to staff shortages which were exacerbated by the COVID-19 pandemic. Future research is required to explore utilisation of upfront training for RACH staff (as part of new employee orientation and professional development) and consideration of a 'train-the-trainer' model to develop local champions in RACHs who can assist with in-house training and support.

Good leadership, clinical governance and organisational culture are fundamental to achieving sustainable best care practices, and the absence of these elements is generally indicative of poor standard of care and outcomes for older persons (Australian Royal Commission into Aged Care Quality and Safety, 2021). Our study participants overwhelmingly stated that strong and stable leadership, along with supportive organisational culture (executive team support and commitment to the project, explicit prioritisation of the project goals, encouragement for codesign of intervention, provision of practical support for implementation) are essential for ensuring effective implementation in the future. Furthermore, the role of the steering committee as a facilitator (ensuring staff engagement and prioritisation of the project at the sites) assisted with gaining progress with the implementation. All future studies should ensure explicit executive sponsorship and commitment from the entire RACH from the outset to ensure successful implementation.

TABLE 9 Summary of improvements suggested by participants and sample quotes for theme 5

Subtheme	Suggestions	Sample quote
Training-related improvements	<ul style="list-style-type: none"> <li>• Face-to-face training sessions on a (preferably) non-working day (dedicated for training) rather than at the end of the workday or during busy times during their shift. For example, earlier during the day was reported to suit better than around noon</li> <li>• Training details, such as date, time and duration, need to be negotiated with the site managers in advance</li> <li>• Tailored education to staff/site (ensure trainers have a good understanding of aged care settings, differences between PC in hospital and aged care settings, inclusive education suitable for careworkers and registered nurses) is required for better uptake amongst aged care staff</li> <li>• Making recorded sessions of training available for those who could not attend the training</li> <li>• Dedicated training approach is needed for upskilling non-English-speaking workforce (such as bringing someone from their culture for training and explaining the purpose of the project)</li> <li>• Need for ongoing training, refresher or mandatory training for new staff as there is a huge staff turnover at the sites</li> <li>• Ensuring buy-in from RACH managers and highlighting value-adding aspects of the intervention and benefits for staff and staff during training sessions is important</li> <li>• Opportunities for staff to interact through community of practice, complementary training for family on end-of-life care in aged care settings, making tools available online and short and sharp 20-min training sessions for better reach</li> <li>• Suggestion for resources included use of information guide (posters) at nurses' desk on using SAS with residents, new resources for sharing with the family, for example, leaflets or brochures or booklet regarding palliation</li> <li>• Adding environmental factors to tools (in addition to common symptoms), to understand what is going on around the resident that may impact their behaviour</li> </ul>	<p><i>I think that the education—the timing of the education sessions were not at an appropriate time, just because here in residential, it seemed to be around that 12:00 to 1:30-ish and that's an impossible time to be able to get people off the floor ... Maybe 10:00 to 11:30 or then later in the day, but I think that earlier period would be better. [P9]</i></p>
Organisational support for implementation	<ul style="list-style-type: none"> <li>• Executive sponsorship and commitment from site leadership team is needed for the project to be seen as a priority</li> <li>• Roles and responsibilities of participants and individual accountabilities need to be clarified prior to commencement</li> <li>• Guidance from a steering committee is required to ensure any challenges to the project implementation or adoption are addressed in a timely manner</li> <li>• Codesigning how the intervention will be implemented will ensure a whole of site buy-in, top-down staff engagement and better preparation/readiness of sites for practice change</li> <li>• RN or careworkers should be part of the needs round discussions as only management staff from the site are currently involved</li> <li>• Ongoing support through adequate staffing/supporting resources is key to achieving progress with all aspects of the intervention</li> <li>• Support in the form of back up staff (to cover for staff attending training) is important to increase uptake of the tools and assessments among aged care staff</li> <li>• Ensuring presence of dedicated staff in the organisation who can act as a point of contact for follow up discussion regarding the project</li> <li>• To alleviate staff workload pressures and achieve progress with implementation, a stepped approach to intervention (start small, pilot, learn and adapt) was recommended ahead of a full-scale intervention</li> <li>• Assist sites achieve slow integration of tools/ assessments into routine practice, good understanding of how to implement and more importantly realise real benefits of the intervention to residents</li> <li>• A holistic medical team approach should be used to ensure timely attention is paid to resident needs (including easy access to a PC doctor who can liaise with GPs to discuss residents' PC needs)</li> <li>• Understanding existing system and gaps in processes and taking steps to integrate QEoLC tools with existing systems and workflow processes (before initiating a practice change)</li> </ul>	<p><i>I think with the Needs Rounds, it just should not just be the management sitting on the Needs Rounds ... because we are not frontline there. We're on the management team ... tend to give guidelines, guidance plus policies and all but it should be the staff, because they are the frontliners. It should be the RNs and the staff... [P7]</i></p> <p><i>I think at times there was some support initially around implementing PCOC ... working with me around really getting it started here in the RACH and what it should look like and how we need to roll it out. But I think that just sort of seemed to dwindle out ... I guess after that short period of time that it was implemented, and everything was fine and it was all going ... But as I've said to you earlier, I just think that there needed to be a lot more support with everything. [P9]</i></p> <p><i>I think the forms, if we had have embedded them into our system would have had a very good impact. I think we would have been able to communicate with the GP better, clearly articulating that we were not meeting this person's advance care planning goals of care and this form showed us that there was a disconnect and that we could not leave it [P12]</i></p>

(Continues)

There is abundant evidence in the implementation science literature to show that the role played by champion staff is an important facilitator of successful implementation irrespective of the care settings (Hall et al., 2021; Soo et al., 2009). Champions can assist with education, influencing peers to make changes to routine practice approaches and navigate challenges through use of their communication and networking skills (Soo et al., 2009). Champions can also assist with initiating or coordinating PC approaches and advance care planning-related quality improvement initiatives in RACH (End of Life Directions for Aged Care, 2021). In our study, the champion staff at the RACH (workplace trainer/clinical care manager) influenced the careworkers to utilise the intervention tools and provided local mentoring on a needs basis to assist with implementation. Champions constantly reminded their peers about the importance of attending palliative and end-of-life care training. Unfortunately, this was sometimes not enough as sites struggled with competing priorities, high staff turnover, and lack of practical support such as data entry of completed assessments. The absence of dedicated staffing and supporting practical resources for implementation was a major barrier and is important to be addressed in all future interventions. Ideally, champion staff should be employed/situated within RACH to support implementation.

Thoele et al. (2020) argued that providing a structured approach or guide to implementation using implementation toolkits can increase the utilisation of evidence-based interventions. The authors stated that in addition to implementation kits, guidance regarding adaptation to different contexts or strategies is equally important to support implementation. The QEOlC Project provided a toolkit with a collection of assessment and response tools (PCOC tools and flipcharts) to all RACH staff. Unfortunately, this toolkit was not utilised effectively due to frequent staff changes and poor attendance at training sessions. This could have resulted in confusion amongst staff regarding the purpose of using new tools in the QEOlC Project. Codesigning the intervention with RACH staff input, frequent training/refresher sessions and integration of new assessment tools into existing systems and routine practice would be strategies to avoid such gaps in knowledge.

In our study, participants highlighted lack of GP knowledge, preparation and support for providing timely PC to the residents. There is an emerging trend towards development of specialties in long-term care (such as in the Netherlands) where physicians specialise in the provision of long-term care to residents in RACH settings (Hoek et al., 2003). However, in Australia no such specialties exist and the reliance of RACH on visiting GPs (who may or may not have interest in aged care) to initiate PC seems to be problematic. Given the ageing population in Australia, the potential role for such physician specialties or nurse practitioners focussed explicitly on long-term care for residents should be explored. The Australian Royal Commission into Aged Care Quality and Safety (2021) also highlighted the need for enhanced general practice/primary care model with accredited aged care GPs and boosting of incentives for GPs to practice in aged care. The COVID pandemic has further highlighted the need for increased capacity for GPs and staff in RACHs to provide primary PC.

The QEOlC Project was a complex intervention that was multifaceted and included several new evidence-based components and tools/assessments and called for a level of subject matter expertise in end-of-life care amongst RACH staff that was not always available. Future interventions should consider identifying champions at various hierarchical staffing levels to ensure required expertise and support are available to facilitate implementation and are integrated permanently into the staffing structure to enable sustainability. In addition to the overall executive sponsor, site-based manager champion, one to two registered nurse champions with subject-related knowledge and champion careworkers (to identify and assess residents' PC needs and influence peers to accept practice change) are needed to facilitate such a complex intervention in the future. Pacing the implementation of the different intervention components and incorporating assessment tools into workplace electronic systems to reduce the burden of paperwork is also essential for sustainability both in the short and long-term.

#### 4.1 | Strengths and limitations

The QEOlC Project is a multicomponent training and resources project focussed on improving palliative and end-of-life care for residents in RACHs. The intervention was trialled within one aged care provider (two sites) during a time when RACH sector/staff faced additional challenges due to the COVID-19 pandemic. The intervention pulls together evidence-based tools and effective approaches such as the Specialist PC Needs Round that have shown to be successful in RACH settings in reducing unnecessary hospitalisation through appropriate symptom management and staff training (Forbat et al., 2020; Koerner et al., 2021). The practical component (PEPA placement) did not occur due to the pandemic, thereby limiting the experiences of the study participants. This has implications for understanding the effectiveness of the entire intervention as a model of care. The small sample size with participants from two RACHs only limits transferability of the interview findings to other RACH settings. Partly due to pressures on frontline staff as a result of the COVID pandemic, our sample was weighted towards participants from the management level, and this may have influenced our findings.

## 5 | CONCLUSION

Overall, the study suggests that the QEOlC Project has the potential to build PC capacity of healthcare professionals and careworkers with knowledge, skills and confidence in working in RACHs. This study highlighted the potential benefits of quality PC for the residents and the staff caring for them. It provided a deeper understanding of RACH-specific barriers to implementation of PC and end-of-life care within RACH settings. The study findings also suggest that organisational leadership, commitment and culture are key to achieving successful adoption and effective implementation of any new intervention initiatives. The findings will inform a model of PC provision

and future adaptations to the design of the QEOC Project to ensure it meets the needs of residents, families, staff and RACHs and aligns well with government policies on PC in RACHs. With the noted limitations, larger studies are needed to confirm the findings of our study.

## AUTHOR CONTRIBUTIONS

Srivalli Vilapakkam Nagarajan, Melanie R. Lovell and Josephine M. Clayton conceived and designed the study including development of interview guide/questions. Srivalli Vilapakkam Nagarajan collected data and wrote the first draft of the manuscript. Srivalli Vilapakkam Nagarajan, Melanie R. Lovell, Josephine M. Clayton, Mustafa Atee, Christopher J. Poulos and Thomas Morris were involved in the collaborative analysis of the data. All authors were involved in the interpretation and critical review of the data, revising the manuscript, reviewing changes to the manuscript and approval of the final version.

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## CONFLICT OF INTEREST

None declared.

## DATA AVAILABILITY STATEMENT

Research data are not shared.

## ORCID

Srivalli Vilapakkam Nagarajan  <https://orcid.org/0000-0002-6004-5994>

Christopher J. Poulos  <https://orcid.org/0000-0002-3090-3839>

Josephine M. Clayton  <https://orcid.org/0000-0002-9856-5434>

Mustafa Atee  <https://orcid.org/0000-0002-0837-3245>

Thomas Morris  <https://orcid.org/0000-0003-3627-6095>

Melanie R. Lovell  <https://orcid.org/0000-0002-1407-2748>

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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