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**Residential aged care facility clinical placements for
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the Australian experience**

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Research

Residential aged care facility clinical placements for undergraduate paramedic students: An evaluation of the Australian experience

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Abstract

Introduction

This paper presents an evaluation of the pilot aged care clinical placement undertaken by undergraduate paramedic students in the university-based Wicking Dementia Research and Education Centre's Teaching Aged Care Facilities Program. The objective is to examine the learning experiences of students taking part in the first paramedic student clinical placement in Tasmania to be situated in the residential aged care environment. The students' interactions with residents with dementia, and with older people requiring a palliative approach to care, are discussed, as key strategies to enhance paramedic student learning.

Methods

Twenty-one final year undergraduate paramedic students completed a 5-day (40 hour) clinical placement in September/October 2011, in two participating residential aged care facilities in Tasmania, Australia. Qualitative data were obtained from weekly feedback meetings with students, which were audio-recorded, transcribed, and subjected to content analysis. Quantitative data from pre- and post-placement questionnaires were collected and descriptive analyses performed.

Results

The data showed that students enjoyed interaction with residents and that this built their communication skills, particularly with residents who had dementia. Students also learnt about the importance of a palliative approach to care and improved their knowledge of dementia.

Conclusion

A supported placement program in residential aged care facilitates paramedic students' learning in a number of areas, particularly around working with people who have dementia, which is likely to enhance student readiness for the graduate paramedic role.

Keywords

dementia; palliative approach; paramedic students; residential aged care

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Introduction

The demand on ambulance services is growing in the developed world (1). In Australia, ambulance services responded to over 3.1 million incidents in 2010-11 (2), representing an increase of 2.9% per 100,000 people over previous years (3). Importantly, in the Australian state of New South Wales in 2009-10, 48.2% of ambulance incidents involved people aged 65 and over, who comprised 14% of that state's population (4). Reports indicate that older people more often require ambulance services in response to exacerbations of chronic conditions (5), minor injuries and falls (6), as well as trauma cases (7). Given the ageing population and associated increases in comorbidities and disability, together with a decrease in availability of informal support (8,9), the demand for ambulance services in Australia is expected to increase (10). The demographic change also has the potential to drive significantly the need to transform the way paramedics practise (11).

Recognising older people's increasing use of ambulance services, extended paramedic roles have been developed, both internationally and in Australia, to meet the non-emergency care needs of older people in the community (6). In Australia, the South Australian Health and Ambulance Service initiated an extended care paramedic program in 2008, in some measure also meeting the needs of residents in residential aged care facilities (RACFs) (12). RACFs routinely care for frail older people who have multiple comorbidities and life-limiting conditions (13), including dementia (14). Worldwide, the prevalence of people with dementia is predicted to increase significantly (15). In Australia, this has been projected to increase from around 270,000 in 2011 to around 950,000 by 2050, with most living in the community and aged over 65 years (16). Concomitant with the life-limiting nature of progressive dementias is the need for a palliative approach to care (17), which aims to improve the quality of living - and dying - for the person with dementia, and their family carer (18).

Little is known, however, of paramedic engagement with the aged care sector or strategies to support undergraduate paramedic student participation in aged care clinical placements and their concurrent engagement with residents who have dementia. Surprisingly, despite the College of Paramedics (United Kingdom) recognition of the benefits of an aged care placement for paramedic students (19) and older people's increasing use of emergency ambulance services (20), aged care clinical placements for undergraduate paramedic students in the developed world appear to be uncommon. In Australia, the literature reports a lack of core clinical placements in residential aged care (21), with 'on-the-road' placements (22) and emergency departments (23) featuring strongly, in addition to placements in other acute care areas (24). This may be partially due to a traditional (albeit changing) 'on-the-road' focus of paramedics and paramedic students (25).

However, there are also other possible factors contributing to a lack of residential aged care student placements that are common to a range of healthcare students.

Indeed, underutilisation of residential aged care placements has been reported for healthcare students in general, with only 4% of clinical placements in Australia being in this environment (23). This is likely to be reflective of a pervasive lack of emphasis on aged care and dementia in the curricula of a range of undergraduate healthcare courses, such as medicine and nursing (26-28). This situation may be due to a number of reasons, including a lack of capacity or availability of staff to teach about ageing and a focus on the 20th century health issues of acute and infectious diseases (27,29). Compounding this issue is research that suggests many healthcare students, including medical and nursing students, hold negative attitudes towards aged care (29,30), despite the likelihood that most will work predominantly with older people when they graduate and enter the workforce (20,31). This may be due to cultural attitudes towards older people generally, as well as to a focus on technical rather than holistic skills, the perception that working with older people is unchallenging, and the lower professional status of aged care, particularly compared to the acute sector (29,30).

Despite the predominance of both ambulance (32) and hospital sites (21) for paramedic students' clinical placements, these sites may struggle to support opportunities for student learning, particularly in the face of increasing numbers of healthcare students completing practice education placements (33). Coupled with Willis and colleagues' (34) call to better address 'communication, teamwork, human understanding and relationships' in Australian undergraduate paramedic curricula, RACFs may be ideally placed to facilitate paramedic student learning regarding vulnerable older people, their family carers and the healthcare team.

In these circumstances, University of Tasmania (UTAS) final year paramedic students participated in a residential aged care clinical placement in 2011. To the authors' knowledge, this was the first time that paramedic students had been placed in RACFs in Australia as part of their core curricula (21). Facilitating UTAS student participation was the UTAS Wicking Dementia Research and Education Centre's Teaching Aged Care Facilities (TACF) Program, informed by the evidence-based best practice model of quality clinical placements in aged care by Robinson and colleagues (35). Although originally based on nursing student placements, this model outlines some key characteristics of a quality aged care placement relevant to healthcare students in general. These characteristics revolve around: (a) adequate preparation, such as building partnerships between RACFs and universities and preparation of RACF staff; (b) support on site, such as opportunities for student feedback; and (c) ongoing evaluation, such as evaluation of student attitudes and experiences.

Given the apparent gap in the specific aged care content of undergraduate paramedic student learning, a key aim of the student placement was to enhance the paramedic students' understanding of older people, including older people with dementia. The intention was that this would occur through the provision of learning opportunities designed, in part, to facilitate the development of student-resident relationships and communication.

The objective of this paper is to examine the learning experiences of the students who took part in the first paramedic student clinical placement in RACFs. The students' interactions with aged care residents with dementia, and/or with other life-limiting conditions in the RACFs, and changes arising from the placement in the students' understandings, competence, and confidence related to these conditions comprise the focus.

Methods

Study Design

Data were collected from UTAS paramedic students on placement in RACFs through the Wicking TACF Program, which aimed to provide quality aged care placements to a range of healthcare students. Both qualitative and quantitative data were collected for this study. Quantitative questionnaire-based data were collected at two time points so as to provide comparable pre- and post-placement data, particularly around knowledge change. To increase the richness and breadth of these data and to allow students a further opportunity for feedback on the placement, qualitative data were also collected in the form of open-ended feedback meetings held during placement.

Setting

Two independent RACFs in the two largest cities of Tasmania participated in the TACF Program, RACF A and RACF B. Both are mid-sized facilities with around 140 beds offering high and low care places.

Participants

All final year, 'fast track' (ie. the students completed six semesters in 2 years) undergraduate paramedic students (n=21) enrolled at UTAS in 2011 participated in an aged care clinical placement. The students undertook their 5-day placement (40 hours completed in 1 week) in two participating RACFs in groups of 3-4 students (n=10 in RACF A and n=11 in RACF B). Half the paramedic students were female (48%), with most students born in Australia (85%) and typically aged 18-25 years (62%).

Instrumentation and procedures

Qualitative data collection and analysis

Project officers conducted weekly feedback meetings with the paramedic students on placement (ie. each student participated in one meeting). Six 1-hour meetings were conducted in total,

three at each RACF. A list of topics derived from the literature and our prior analytic work in the field (eg. 35) was used to prompt discussion of students' placement experiences. Some of the topics included were 'accounts of working/interacting with residents', 'accounts of working/interacting with residents with dementia', 'involvement in clinical activities' and 'changes in competence/confidence'. However, the discussions were open-ended to ensure participants could introduce new topics. Meetings were audio-recorded and transcribed.

The data were coded and analysed for key themes and content related to students' placement experiences using qualitative thematic analysis (36) within Robinson and colleagues' (35) Evidence-Based Best Practice Model framework of the TACF Program. To improve the trustworthiness of these qualitative data (37), peer debriefing was conducted between the project officer and research assistant who were present at the meetings to ensure the main points of the students' discussions were captured. Two researchers independently coded the transcripts by theme and grouped the themes under broad categories, some of which mirrored the topics used as discussion prompts. The findings and emergent themes were discussed with a team of researchers who had extensive experience with qualitative research in the aged care environment. The qualitative data findings are presented under the overarching categories of 'Students' perceptions of beneficial learning experiences in the RACFs', 'Interacting with residents in the RACFs' and 'Working with residents requiring a palliative approach to care'.

Quantitative data collection and analysis

Paramedic students completed a range of questionnaires in the TACF Program prior to, and at the end of, placement. Apart from the demographics already reported, relevant items for this paper measured at pre-placement included two items on prior experience in residential aged care and two items on placement expectations, based on existing questionnaires for nursing students on placements in this environment (38):

1. 'Have you ever visited a relative in a residential aged care facility?' (Yes/no response option)
2. 'Have you previously worked in an aged care facility (ie. as a care worker etc.)?' (Yes/no response option)
3. 'How would you describe your response when you found out you would be on placement in a residential aged care facility?' (Using a 5-point Likert-type scale with response options ranging from 'very happy' to 'very unhappy')
4. 'Are you looking forward to working with older residents in the residential aged care facility?' (Using a 5-point Likert-type scale with response options ranging from 'very happy' to 'very unhappy').

Dementia knowledge was assessed at pre- and post-placement using the Dementia Knowledge Assessment Tool Version 2 (D-KAT2) (39). The D-KAT2 is a validated 21-item tool.

Example items are 'Dementia occurs because of changes in the brain' and 'Dementia is likely to limit life expectancy' (yes/no/don't know response options). During its development, this tool was tested for content validity via two expert panels (four members each), test-retest reliability established, and internal consistency reliability assessed as acceptable (Cronbach's alpha = 0.79) (39). There was a Cronbach's alpha of .781 for the TACF Program sample. Finally, as well as the D-KAT2 completed at post-placement, students were asked: 'Did you enjoy your placement with regard to the older residents?' (Yes/no response option) (38).

Measures of central tendency and dispersion were calculated, and frequency analyses conducted. Dementia knowledge was calculated with total correct item scores for the D-KAT2, with a high score indicative of good dementia knowledge (possible range: 0-21). A paired t-test was used to compare the difference in dementia knowledge between pre- and post-placement testing. IBM SPSS Statistics 20.0 was used to analyse quantitative data.

Placement structure

A staff member from the UTAS paramedic course facilitated the development of the final year students' aged care clinical placement curriculum, in consultation with RACF staff who volunteered to form a mentor group in each facility to support students. The mentor group comprised 10 nursing and care worker mentors in each of the two RACFs. The placement curriculum outlined a range of clinical and non-clinical learning activities, structured with dementia palliation as the 'clinical hook' or key placement focus.

Opportunities for student learning on placement included a dementia palliation workshop, which addressed dementia as a terminal condition, the benefits of a palliative approach to dementia care, and strategies for communicating with residents, family and RACF staff. Education sessions run by external providers focused on issues in dementia care including behaviour management. Students also participated in a range of activities with mentors and other RACF staff, which included wound assessments, medication rounds, personal care, manual handling and community care.

Clinical supervision

While a paramedic tutor at each RACF intermittently supported the students, primarily, nurse and care worker mentors in the two RACFs were responsible for supervising paramedic student learning.

Ethics

Ethical clearance for the TACF intervention and students' participation in the study was obtained from the UTAS Human Research Ethics Committee (No.H11576).

Results

Paramedic students' prior experiences of aged care and attitudes to working with older people

The pre-placement questionnaire showed that two-thirds (n=14, 67%) of the students had visited a relative in an RACF before, though most (n=19, 91%) had no prior experience of working in an aged care setting. While half responded neutrally to the prospect of engaging in a residential aged care placement, almost half (n=9, 43%) were 'unhappy' about the prospect of the placement in general and around one-fifth (n=4, 19%) were 'unhappy' specifically at the thought of working with older people while on placement. A small number of students however were 'happy' or 'very happy' at the prospect of the aged care placement (n=1, 5%) and/or with the prospect of working with older people during placement (n=5, 24%).

Students' perceptions of beneficial learning experiences in the RACFs

The students' feedback meetings conducted during the placement, together with post-placement surveys, revealed insights about the learning experiences students perceived as useful. Beneficial learning experiences included interacting with residents, particularly older people with dementia who benefited from receiving a palliative approach to care. Several students also highlighted in the meetings the value of the dementia palliation workshop on day one of placement, which clearly articulated key characteristics of the dementia trajectory as a life-limiting condition. As student PS7 said, "[on the] first day, the lecture was awesome; I really liked that. We had covered dementia a little bit, but this has really defined it for me".

Interacting with residents in the RACFs

Students' interactions with residents occurred through a range of circumstances, as reported in the meetings, including provision of resident care, participation in exercise/physiotherapy sessions, and conversations with residents including those with dementia. Such experiences helped break down stereotypes as the students reconsidered their attitudes to aged care and/or working with older people. As one student said, "Working here [RACF] and meeting the people [residents and aged care staff] was beneficial. Because you think that you don't subscribe to the stereotypes [about ageing], but we all do... and it was really good to challenge them" (PS2). Concurrently, the placement also provided the opportunity for students to enhance their communication skills with people with dementia. As PS18 said, "What we could get out of this placement was communicating with patients with dementia, so that's what we really focused on, trying to create some rapport with them". Interacting with the residents helped students adapt their communication style to address the sensory and cognitive limitations of older people with dementia, some of whom were "a lot more advanced [along the dementia trajectory] than others, [which] does change the way you talk [to] and treat [them]" (PS3).

The students came to recognise that interacting with older people with dementia called for perseverance, as PS4 noted, "They are in another world [and] think they are really busy so they don't have 2 hours to sit and talk to you". Nevertheless, the opportunity to converse with residents for an extended period was valued by the students, as PS2 recounted:

"At the start, they [two residents with dementia] seemed very switched on, and then when we went through so many versions of a story and they asked the time every 5 minutes... we thought, well when you go to a patient with dementia, as harsh as this sounds, what do you believe [when] they say 'no I'm all good there's nothing wrong with me'."

Given student recognition that "patients with dementia and elderly patients will comprise a majority of our patients when we're on the road" (PS1), the relevance of engaging with these people in the context of an aged care placement became evident:

"It has been great to interact with the older people. And for me personally, just working out in my own head how I [will] approach patients when I go to [callouts to] dementia patients, and identifying when they have dementia. I have been to a few patients [callouts] and it has just gone over my head what was going on, and I didn't identify it. I think I would identify it a lot better now" (PS9).

Equally important was knowing how to communicate with, care for, and support the person with dementia who required ambulance services, which one paramedic tutor discussed in the context of the dementia palliation workshop on day one.

Working with residents requiring a palliative approach to care

While on placement in the RACFs, students described in the meetings how they also interacted with residents who were frail and terminally ill and for whom a palliative approach to care had been directed. Despite their impending graduation, some students struggled with the ethical implications of implementing a palliative approach, whether in the community or a RACF. Particularly confronting for the students were 'not for resuscitation' orders and advance care directives regarding the lack of transfer to hospital for some residents. Although enacting a palliative approach for people with life-limiting conditions was challenging for the students, the importance of facilitating continuity of care for residents in their own environment, particularly those with dementia, was recognised.

One student noted:

"And just learning the whole thing about palliative care. We've gone to a patient that was quite fit looking but she was short of breath, she was fitting... normally we're used to just scooping this person up and taking them to hospital and then trying to calm her down and make her comfortable. Whereas here you've got to take care of her fitting... that's where we've

got to learn to take the step back and not treat it as such an emergency situation. That's important I think, particularly [when working with people with] dementia" (PS6).

Taken together, the paramedic students' experiences of working with aged care residents, including the opportunity to build their communication skills and to learn about a palliative approach to care, helped build their competence and confidence in working with older people including people with dementia.

Changes in knowledge of dementia and attitudes to working with older people

Given the TACF Program is structured with dementia palliation as the 'clinical hook', it was encouraging to note some improvement in the paramedic students' understanding of dementia as a progressive and life-limiting condition at post-placement, as measured by the dementia knowledge tool (D-KAT2) that formed part of the pre- and post-placement questionnaires. While the mean score for the sum of total correct D-KAT2 answers at pre-test was 16.53 (SD=2.96) out of a possible score of 21, at post-test the students' mean score had increased to 18.65 (SD=2.00). Despite the low sample size, scores were normally distributed, and a paired t-test indicated that this change in scores was statistically significant ($t(20) = -2.829, r=0.535, p=0.003$). This score improvement was potentially influenced by the dementia palliation workshop on day one, the students' interactions with residents with dementia, and information from mentors/tutors.

Similarly, the students' recognition of the value of working predominantly with older people in the RACF and perhaps after graduation was apparent from the post-placement questionnaire. For example, at pre-test less than a quarter ($n=5, 24%$) of the students responded positively to the prospect of working with older people in the RACFs, yet at post-test well over three-quarters ($n=18, 86%$) affirmed they had enjoyed this aspect of their placement.

Discussion

This study evaluated the first round of RACF clinical placements undertaken by UTAS final-year undergraduate paramedic students who participated in the Wicking TACF Program. It found that RACF placements offer paramedic students a range of opportunities to facilitate their learning about dementia and palliative care and improve their attitudes to working with older people. Similarly, research from nursing student placements in RACFs highlights that supported high quality residential aged care placements improve nursing student attitudes towards aged care (40-42).

The opportunities for quality teaching and learning regarding dementia palliation that occurred in this program highlight the possibilities of a RACF setting as a unique clinical placement for undergraduate paramedic students. The RACF setting was

also found to benefit first year nursing students who were part of the Wicking TACF Program in this way, as they experienced an increase in dementia knowledge (42).

Over the week of the paramedic students' placement, the dementia palliation focus of the TACF Program enhanced paramedic students' knowledge of dementia as a progressive, life-limiting condition (14). An important element of the students' improved understanding was the dementia palliation workshop, which considered the trajectory of dementia and implications for persons with dementia and their family carers. Here, the students came to understand dementia was a terminal condition that impacts on the person's cognition, communication, behaviour, emotions, function and physical abilities (43). Such improvements in understanding of dementia by students is vital given the forecast global increase in people with dementia (15) and the need for paramedics who are skilled in the assessment and management of people with cognitive and psychiatric deficits (44).

Similarly, managing patient confusion, avoidance and aggression through effective interpersonal skills is a key paramedic competency (45,3), which RACF clinical placements may well facilitate given the significant prevalence of persons with dementia living in such settings (46). During the placement, the students' interactions with people with dementia across a range of clinical and non-clinical areas helped them to develop important skills in communicating with people with cognitive and communication deficits. Indeed, a structured, competency-based approach to undergraduate paramedic learning, including in the RACF context as provided by this program, is pivotal to facilitating planned student learning outcomes and graduate attributes regarding communication with patient and professional groups (45).

Reflecting the dementia palliation 'clinical hook' of the student placement was development of the students' understanding of a palliative approach to the care of residents with life-limiting conditions (47), including dementia. Considering the push for advance care directives both in the community and aged care settings (48), such understanding was important to paramedic student learning. Patient and/or medical orders regarding 'not for transfer to hospital' and 'not for resuscitation', however, are often confronting for healthcare undergraduates (49) who require education and support in understanding the legal, ethical and organisational implications of their actions in such situations.

Given the College of Paramedics imperative for students to engage with older people with degenerative conditions (19), RACFs are ideally placed to support undergraduate paramedic learning, as has also been suggested for nursing students (42). Indeed, in the face of clinical placement shortages (33), residential aged care settings may yet prove to be the mainstay

of undergraduate paramedic student placements if educators and service providers collaborate to recognise and strategically develop the opportunities such environments offer (50).

Limitations of this study

The limitations of this study primarily reside in its status as a pilot with a small sample size (n=21) and geographically restricted to a single state of Australia, and the associated implications for generalisation of the findings. This paper discusses the facilitators and learning experiences of the paramedic students' aged care clinical placement (the 'positives'). Barriers to developing the aged care clinical curriculum in this first round of student placements have not been introduced here. Instead, papers from later iterations of student placements will examine these, such as Lucas and colleagues (50) paper regarding the 'negatives' of the second iteration of the paramedic students TACF Program placement. However, it can be said from the current findings that the first stage of this project highlights a need for development of the paramedic curriculum to incorporate more aged care content, as has been found for other healthcare courses (26-28). The findings emphasise the role paramedics have in providing critical care and support to frail older people, and point to the need for further larger-scale and geographically diverse research in this area.

Conclusion

This paper identified the innovative nature of the UTAS paramedic students' participation in a RACF placement for the first time in Tasmania. During the 5-day placement, the students interacted with a range of aged care residents, including older people with dementia, developing key communication and interpersonal skills, and an understanding of the complexities of care regarding older people with life-limiting conditions.

Given the ageing population and expected increase in the prevalence of dementia, the imperative arises to interrogate the outcomes of the TACF Program in order to facilitate quality student learning regarding older people with dementia and/or requiring a palliative approach to care. With older people comprising well over one-third of ambulance callouts in Australia, the participation of undergraduate paramedic students in supported best-evidence aged care placements will enhance student confidence and competence in caring for and caring about older people and thus facilitate student readiness for the graduate paramedic role.

Conflict of interest

The authors declare they have no competing interests. Each author has completed the ICMJE conflict of interest form.

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