

2017

## **An examination of students' perceptions of their interprofessional placements in residential aged care**

Karla L. Seaman

Rosemary Saunders  
*Edith Cowan University*

Elly Williams

Jane Harrup-Gregory

Helen Loffler

*See next page for additional authors*

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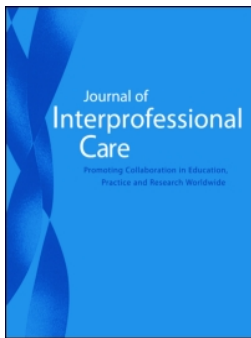
Seaman, K., Saunders, R., Williams, E., Harrup-Gregory, J., Loffler, H., & Lake, F. (2017). An examination of students' perceptions of their interprofessional placements in residential aged care. *Journal of Interprofessional Care*, 31(2), 147-153. Available [here](#).

This Journal Article is posted at Research Online.  
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## Authors

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To cite this article: Karla Seaman, Rosemary Saunders, Elly Williams, Jane Harrup-Gregory, Helen Loffler & Fiona Lake (2017) An examination of students' perceptions of their interprofessional placements in residential aged care, Journal of Interprofessional Care, 31:2, 147-153, DOI: [10.1080/13561820.2016.1262338](https://doi.org/10.1080/13561820.2016.1262338)

To link to this article: <http://dx.doi.org/10.1080/13561820.2016.1262338>



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Published online: 09 Feb 2017.



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THEMED ARTICLE

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## An examination of students' perceptions of their interprofessional placements in residential aged care

Karla Seaman<sup>a</sup>, Rosemary Saunders <sup>b</sup>, Elly Williams<sup>a</sup>, Jane Harrup-Gregory<sup>a</sup>, Helen Loffler<sup>c</sup>, and Fiona Lake<sup>d,e</sup>

<sup>a</sup>Brightwater Care Group, Perth, Western Australia, Australia; <sup>b</sup>School of Nursing and Midwifery, Edith Cowan University, Perth, Western Australia, Australia; <sup>c</sup>Helping Hand, Adelaide, South Australia, Australia; <sup>d</sup>School of Medicine and Pharmacology, The University of Western Australia, Perth, Western Australia, Australia; <sup>e</sup>Sir Charles Gairdner Hospital, Nedlands, Perth, Western Australia, Australia

### ABSTRACT

It is essential that health professionals are trained to provide optimal care for our ageing population. Key to this is a positive attitude to older adults along with the ability to work in teams and provide interprofessional care. There is limited evidence on the impact an interprofessional education (IPE) placement in a residential aged care facility (RACF) has on students. In 2015 in Western Australia, 51 students (30% male, median age 23 years), from seven professions, undertook a placement between 2 and 13 weeks in length at 1 RACF. Pre- and post-placement measurements of attitudes to the elderly were collected using the Ageing Semantic Differential (ASD) questionnaire and level of readiness for interprofessional learning with the Readiness for Interprofessional Learning Scale (RIPLS). A total of 47 students completed matched ASD and RIPLS surveys. The mean total score on the ASD survey decreased significantly from pre- to post-placement from 116.0 to 108.9 ( $p = 0.033$ ), indicating attitudes became increasingly positive towards older adults. Significant differences post-placement were seen indicating better readiness for interprofessional learning, for two out of four subscales on the RIPLS, namely "teamwork & collaboration" (42.1–44.0; ( $p = 0.000$ )) and "positive professional identity" (18.2–19.3 ( $p = 0.001$ )). The degree of change is similar to findings from other settings. The results support IPE-focussed student placements within RACF positively influence student's attitudes towards the older adult as well as increase student's readiness for interprofessional learning, confirming RACF are valuable places for training health professionals.

### ARTICLE HISTORY

Received 15 February 2016  
Revised 15 November 2016  
Accepted 15 November 2016

### KEYWORDS

Attitudes to older adults;  
interprofessional education;  
nursing homes; residential  
aged care; student  
placement

### Introduction

As the Australian population ages, it is important to prepare the future health workforce for the care of the elderly. There are evidence student placements in aged care help to prepare students to be confident in working with older adults and eventually attracts more graduates to work in community and residential aged care (House, Goetz, & Dowell, 2015). As important as skills and confidence to work with the elderly is the ability to work in teams and provide interprofessional care, an important factor in the delivery of safe effective care (Brewer & Stewart-wynne, 2013; Reeves, 2016; Thom et al., 2016; Thomson, Outram, Gilligan, & Levett-Jones, 2015). For aged care facilities that use an interprofessional model to deliver care, training in these settings offers the chance to improve attitudes to the elderly, as well as interprofessional skills and knowledge.

The evidence residential aged care facilities (RACF) can provide an excellent learning environment for health professional students, developing core clinical skills at the same time as learning how to care for older adults is strong (House et al., 2015; Wallace, Brown, Cumming, & Waugh, 2007). A recent study by Saunders, Miller, Dugmore, and Etherton-Beer (2016) supported the results from this research, reporting that meaningful learning opportunities in RACF improved

the clinical skills of medical students and assisted in developing an understanding of residents and the aged care environment.

There has been considerable literature examining student attitudes to ageing, the majority focusing on nursing and medical students (Gonzales, Morrow-Howell, & Gilbert, 2010; King, Roberts, & Bowers, 2013; Lea, Mason, Eccleston, & Robinson, 2015; Rodgers & Gilmour, 2011) and only a limited number on students from other health professions (Sheppard et al., 2015; Zambrini, Moraru, Hanna, Kalache, & Nuñez, 2008). A recent study by Lea et al. (2015) found that for second year nursing students, a supported residential aged care placement can influence attitudes towards older adults and working in aged care post-graduation. Additionally, research conducted by Rodgers and Gilmour (2011), also with nursing students, showed that through learning and experience, there was a positive shift in student's self-reported attitudes towards older adults. A literature review by Neville and Dickie (2014) reported that most nursing students have a positive attitude towards older adults. Chenoweth, Jeon, Merlyn, and Brodaty (2010) conducted a systematic review and determined successful strategies to recruit and retain nurses in aged care included ongoing supervision, education, training, and teamwork. In comparison with changing student attitudes however, there is limited evidence about the impact of an

interprofessional placement in aged care in improving student's readiness to learn interprofessionally.

## Background

One aged care organisation in Western Australia (WA), as part of a national collaborative project, developed an interprofessional student placement programme in one of their facilities in 2010. As noted, RACF are rich learning environments for students, and in this project, students from a diverse range of entry into practice university degrees including medicine, pharmacy, physiotherapy, occupational therapy, nursing, speech pathology, social work, and dietetics participated in the student placements.

The study was conducted at one RACF in WA. The IPE programme was guided by the IPE coordinator and delivered by two IPE facilitators. Students were also supported by the onsite health professional team and students delivered care within their scope of practice under the supervision of a site staff member within their own profession and also interacted with site staff members from other professions or care areas.

In addition to students completing their normal course requirements, they participated in a range of interprofessional activities. These activities included leading resident therapy programmes such as balance group and pulmonary rehabilitation, delivering information sessions for staff such as seating and positioning, and medication in care of Parkinson's disease, participating in interactive, interprofessional and collaborative case discussions, and general practitioner resident visits.

With the aid of a designated IPE student room at the RACF, students were encouraged to deliver care as part of the IPE student team with the staff on site and encouraged to spend time with the other professions to learn with, from and about them. The students had the opportunity to observe and participate in consultant visits from other health professionals including dietitian and nurse practitioner. These opportunities provided the students with a greater understanding of each health professional's role and their role in the aged care sector.

## Methods

This article reports one component of the project arising from the final year of the larger mixed method study evaluating interprofessional education activities in a residential aged care context. The larger project was run across two aged care organisations over a 3-year period and involved a triangulation of perspectives from students, staff, residents, and family and friends.

Employing a quasi-experimental pre-/post-intervention design, the aim of the study was to determine the perceived impact of IPE programmes conducted in RACF on a range of health profession students in terms of attitudes towards older adults and readiness for interprofessional learning.

## Participants

Fifty-one students undertook a practical placement in the interprofessional education programme at the aged care facility during 2015. Students were drawn from the tertiary education sector from three universities in WA. The placements varied in length

from two to 13 weeks. The nature of the IPE placement was both voluntary and involuntary depending on the university and discipline. Students completing an IPE placement were invited to participate in the study by completing the pre-attachment survey on orientations and the post-attachment surveys on completion of their placement.

## Data collection

Two survey tools were administered, one to measure if the interprofessional placement changed student attitudes towards older adults (the Ageing Semantic Differential (ASD)) and another to determine if the level of readiness for interprofessional learning increased during the placement (Readiness for Interprofessional Learning Scale (RIPLS)). Both surveys were provided in hard copy.

The ASD was developed by Rosencranz and McNevin (1969) and consists of 32 items that measure attitudes or perceptual predisposition of respondents towards older adults. Each item has a bipolar adjective with a response range of 1–7, for example, rich (1) to poor (7). A score between one and three represents a more positive attitude towards older adults (they are more rich than poor), a score of four represents a neutral response (neither rich nor poor), and a score five to seven represents a negative attitude towards older adults (they are more poor than rich). The total ASD score ranges from 32 to 224 with a lower score indicating a more positive view of older adults. The ASD can be broken down into the subscales "Instrument-Ineffective", "Autonomous-Dependent", and "Personal Acceptability-Unacceptability". The validity and reliability of the original ASD and refined versions have been discussed widely in the literature. Despite this, the original ASD has been confirmed as reliable and continues to be used in a number of studies (Gonzales, Tan, & Morrow-Howell, 2010; Iwasaki & Jones, 2008; Ross, Jennings, & Williams, 2016; Williams, Anderson, & Day, 2007). Each student was asked demographic questions including age, discipline, and gender.

The RIPLS was originally developed by Parsell and Bligh (1999) to evaluate attitudes and perceptions of students regarding IPE. The 2005 version of the RIPLS was used, and it consists of 19 questions scored using a 5 point Likert scale (Strongly Disagree—1 to Strongly Agree—5) (McFadyen et al., 2005). The four subscales included 1-teamwork and collaboration, 2-negative professional identity, 3-positive professional identity, and 4-roles and responsibilities. The validity and reliability of the RIPLS has been widely debated in the literature despite the tool being commonly used in research assessing IPE. A number of studies have reported the RIPLS as reliable and valid (Hind et al., 2003; Lawlis, Wicks, Jamieson, Haughey, & Grealish, 2016) and McFadyen et al. (2005) reported an adequate internal consistency for three of the four subscales, warning that "roles and responsibilities" should be treated with caution.

Each student was asked additional open-ended questions on the RIPLS survey, including if they had completed the RIPLS questionnaire before and if yes how long ago, if they had previous experience of interprofessional teaching and any further comments in regard to interprofessional education.

## Data analysis

Data analysis was conducted using SPSS version 21.0 (IBM, Chicago, IL, USA). Students provided a unique ID code that enabled their pre- and post-scores to be matched for analysis. Only students who completed both the ASD and RIPLS were included in the analysis. Descriptive statistics were used to summarise the quantitative data. Parametric and nonparametric analysis was conducted depending on the distribution of the data for each tool. A Wilcoxon Signed Rank test or paired t-test was used to test for differences between the pre- and post-attachment scores, and further analysis was conducted to explore difference between the professions involved. Numbers were not large enough for students to be studied separately by discipline. Further analysis has been conducted by length of placement.

Content analysis was used to explore the open-ended questions and was expressed as a percentage from the total number of comments in each category.

## Ethical considerations

Ethical approval was received from both the Human Research Ethics Committee at University of Western Australia (HREC No: RA/4/1/6257) and the ethics committee of the aged care facility in which the practicum was undertaken.

## Results

### Demographics

In total 47 students completed pre- and post-attachment ASD surveys and RIPLS surveys (response rate 92%) allowing them to be matched. Thirty per cent of students were male and 70% female with mean and median ages of 25.5 and 23 years, respectively. There were seven professions that completed the survey with placement lengths varying from two to 13 weeks, as shown in Table 1.

### Ageing semantic differential

The mean total score of all 32 items on the ASD survey pre-placement was 116.0, which decreased significantly post-placement to 108.9 ( $p = 0.033$ ), indicating on average students' attitudes became increasingly positive towards older adults (see Table 2). Two out of three subscales on the ASD changed significantly from pre- to post-placement, "Instrument-Ineffective" decreased from 37.5 to 34.9 ( $p = 0.027$ ), and "Personal Acceptability-Unacceptability" decreased from 46.3

**Table 1.** Number of students by profession and length of placement.

Profession	Number of students	Length of placement
Nursing university 1	4	5 weeks
Nursing university 2	9	2 weeks
Physiotherapy	11	5 weeks
Occupational therapy	8	7 weeks
Speech pathology	6	10 weeks
Pharmacy	5	3 weeks
Dietetics	2	2 weeks
Social work	2	13 weeks
Total	47	–

**Table 2.** Average ASD subscale scores pre- and post-placement ( $n = 47$ ).

ASD subscale	Mean (SD)		
	Pre	Post	Change
Instrument—Ineffective (9 items)	37.5 (5.2)	34.9 (7.6)	2.6 (7.8)*
Autonomous—Dependent (9 items)	32.2 (4.8)	32.0 (6.5)	0.2 (7.5)
Personal acceptability—Unacceptability (14 items)	46.3 (7.3)	41.9 (10.1)	4.4 (9.8)**
Total (32 items)	116.0 (14.6)	108.9 (22.2)	7.2 (22.4)*

Note: Paired t-test \*  $< 0.05$ ; \*\*  $< 0.01$ .

to 41.9 ( $p = 0.004$ ; see Table 2). "Autonomous-Dependent" had a slight decrease from 32.2 to 32.0, which was not statistically significant. There was no correlation between length of placement and total change in attitudes by total change and change in the three subscales.

Ten individual items on the 32 item ASD survey were significantly different from pre- to post-placement as highlighted in grey in Table 3. The largest changes in attitudes were seen in recognising older adults as cooperative, tolerant, progressive, and flexible, followed by busy, handsome, pleasant, exciting, friendly, and aggressive. Overall 66% of students completing matched ASD surveys had a positive change in total attitudes towards older adults following their IPE placement.

### Readiness for Interprofessional Learning Scale

Overall, significant differences were seen in readiness for interprofessional learning for two out of four subscales (see Table 4)

**Table 3.** Average scores for each ASD item, pre- and post-placement ( $n = 47$ ).

Subscale and item	Mean (SD)		
	Pre	Post	Change
Instrument—Ineffective			
Productive ↔ Unproductive	3.5 (1.0)	3.3 (1.3)	0.2 (1.2)
Active ↔ Passive	3.9 (1.0)	3.7 (1.1)	0.2 (1.6)
Expectant ↔ Resigned	3.8 (1.0)	3.7 (1.1)	0.2 (1.4)
Strong ↔ Weak	4.1 (1.1)	3.9 (1.4)	0.3 (1.6)
Healthy ↔ Unhealthy	4.2 (1.0)	4.3 (1.2)	–0.0 (1.2)
Busy ↔ Idle	4.2 (1.1)	3.7 (1.2)	0.5 (1.5)*
Aggressive ↔ Defensive	4.5 (0.8)	4.2 (0.9)	0.3 (1.1)*
Liberal ↔ Conservative	4.7 (1.2)	4.3 (1.1)	0.4 (1.6)
Progressive ↔ Old-fashioned	4.5 (1.0)	3.9 (1.4)	0.6 (1.4)**
Autonomous—Dependent			
Organised ↔ Disorganised	3.0 (1.0)	3.0 (1.0)	–0.1 (1.4)
Consistent ↔ Inconsistent	3.3 (1.3)	3.3 (1.2)	–0.1 (1.8)
Satisfied ↔ Dissatisfied	3.5 (1.0)	3.4 (1.1)	0.1 (1.3)
Certain ↔ Uncertain	3.3 (0.9)	3.4 (1.2)	–0.2 (1.4)
Secure ↔ Insecure	3.8 (1.0)	3.8 (1.3)	0.0 (1.3)
Self-Reliant ↔ Dependent	4.0 (1.1)	3.7 (1.3)	0.3 (1.4)
Independent ↔ Dependent	3.9 (1.2)	3.8 (1.4)	0.1 (1.6)
Decisive ↔ Indecisive	3.6 (1.2)	3.4 (1.2)	0.1 (1.5)
Rich ↔ Poor	4.0 (0.8)	4.1 (0.7)	–0.0 (0.9)
Personal Acceptability—Unacceptability			
Friendly ↔ Unfriendly	2.3 (0.8)	2.1 (1.0)	0.3 (0.9)*
Trustful ↔ Suspicious	2.8 (1.4)	2.5 (1.1)	0.3 (1.5)
Pleasant ↔ Unpleasant	2.7 (0.7)	2.3 (1.1)	0.4 (1.2)*
Neat ↔ Untidy	2.7 (0.9)	2.7 (1.1)	–0.1 (1.2)
Generous ↔ Selfish	2.8 (1.0)	2.6 (1.0)	0.1 (1.2)
Cooperative ↔ Uncooperative	3.3 (1.1)	2.6 (0.9)	0.7 (1.5)**
Happy ↔ Sad	3.2 (0.9)	3.2 (1.1)	–0.0 (1.2)
Hopeful ↔ Dejected	3.6 (0.9)	3.5 (1.2)	0.1 (1.4)
Optimistic ↔ Pessimistic	3.7 (1.1)	3.4 (1.2)	0.4 (1.5)
Exciting ↔ Dull	3.6 (1.1)	3.1 (1.1)	0.4 (1.2)*
Handsome ↔ Ugly	3.7 (0.5)	3.7 (1.0)	0.4 (1.0)*
Tolerant ↔ Intolerant	3.7 (1.3)	3.0 (1.1)	0.7 (1.6)**
Ordinary ↔ Eccentric	3.9 (1.2)	3.8 (1.1)	0.1 (1.2)
Flexible ↔ Inflexible	4.3 (1.3)	3.7 (1.2)	0.6 (1.5)*

Note: Wilcoxon Signed Rank Test, \*  $< 0.05$ ; \*\*  $< 0.01$ .

**Table 4.** Mean RIPLS subscale scores pre- and post-placement ( $n = 47$ ).

Subscale (item numbers)	Mean (SD)		
	Pre	Post	Change
Teamwork & collaboration (1–9)	42.1 (3.3)	44.0 (1.4)	1.9 (3.2)**
Negative professional ID (10–12)	4.2 (1.5)	3.9 (2.1)	–0.3 (2.5)
Positive professional ID (13–16)	18.2 (1.9)	19.3 (1.1)	1.1 (2.0)**
Roles & responsibilities (17–19)	9.6 (1.7)	9.2 (1.5)	–0.4 (1.7)

Note: Wilcoxon Signed Rank Test, \*\* < 0.01.

after the attachment. The average pre- to post-placement score for “teamwork and collaboration” changed significantly from 42.1 to 44.0 ( $p = 0.000$ ), indicating an increase in students’ perceptions of the importance of collaboration and learning with students from other professions. The average pre- to post-placement score for “positive professional identity” increased significantly from 18.2 to 19.3 ( $p = 0.001$ ), indicating an increase in students valuing IPE and interprofessional learning. The average pre- to post-placement score for “roles and responsibilities” dropped from 9.6 to 9.2 and “negative professional identity” decreased from 4.2 to 3.9 from pre-placement to post-placement, both of which were not significant. There was no correlation between length of placement and total change in readiness for learning across all four subscales. Statistically significant differences from pre- to post- placement score were seen in 13 out of 19 individual items on the RIPLS (see Table 5). There was no significant correlation between the total difference in the pre- and post-ASD and RIPLS subscale scores.

Fourteen students completing matched RIPLS questionnaires identified previous experience of interprofessional teaching, through an online course with their University ( $n = 6$ ), or in their first year at university in interprofessional units ( $n = 2$ ), through workshops and lectures ( $n = 1$ ) or a previous practical placement ( $n = 1$ ), with two unstated.

Six students provided comments on the impact of previous IPE teaching, which included the importance of communication when working in a interprofessional team ( $n = 2$ ), the broader understanding of other professions they developed as a result of previous IPE teaching, and the insight this gave them into working as a health professional ( $n = 2$ ) and the importance of working together in a interprofessional team to improve client outcomes ( $n = 2$ ).

In the pre-placement RIPLS questionnaire, two students commented on IPE, with one student noting, “developing an attitude of collaboration when working interprofessionally is very important. Everyone has expertise and something to offer”, and the other student commenting, “I would appreciate more IPE experiences as I feel that my studies have prepared me for working individually more than for working in a team”.

Following placement, 43% of students ( $n = 20$ ) provided further comment. The majority ( $n = 10$ ) believed that the IPE placement was beneficial to their learning and understanding of other professions, whilst six students said that they learnt valuable teamwork skills from their placement. A further six students noted that client care could be improved from interprofessional health teams in aged care, and one commented, “IPE is very good for developing team skills and learning to work with other health

**Table 5.** Mean RIPLS scores for each RIPLS item pre- and post-placement ( $n = 47$ ).

RIPLS item	Mean (SD)		
	Pre	Post	Change
Teamwork and collaboration			
1. Learning with other students/professionals will make me a more effective member of a health and social care team	4.8 (0.4)	5.0 (0.1)	0.2 (0.4)**
2. Patients would ultimately benefit if health and social care students/professionals worked together	4.8 (0.4)	5.0 (0.1)	0.2 (0.5)**
3. Shared learning with other health and social care students/professionals will increase my ability to understand clinical problems	4.6 (0.6)	4.9 (0.3)	0.3 (0.5)**
4. Communications skills should be learned with other health and social care students/professionals	4.6 (0.5)	4.7 (0.5)	0.1 (0.6)
5. Team-working skills are vital for all health and social care students/professionals to learn	4.9 (0.3)	5.0 (0.2)	0.1 (0.4)
6. Shared learning will help me to understand my own professional limitations	4.5 (0.7)	4.8 (0.4)	0.3 (0.7)*
7. Learning between health and social care students before qualification and for professionals after qualification would improve working relationships after qualification/collaborative practice.	4.6 (0.6)	4.9 (0.3)	0.4 (0.6)**
8. Shared learning will help me think positively about other health and social care professionals	4.6 (0.5)	4.9 (0.3)	0.3 (0.6)**
9. For small-group learning to work, students/professionals need to respect and trust each other	4.8 (0.4)	4.9 (0.2)	0.1 (0.4)
Negative professional identity			
10. I don't want to waste time learning with other health and social care students/professionals	1.3 (0.6)	1.1 (0.6)	0.2 (0.8)*
11. It is not necessary for undergraduate/postgraduate health and social care students/professionals to learn together	1.4 (0.5)	1.3 (0.8)	0.1 (0.9)
12. Clinical problem solving can only be learnt effectively with students/professionals from my own school/organisation	1.4 (0.6)	1.5 (1.0)	0.0 (1.1)
Positive professional identity			
13. Shared learning with other health and social care professionals will help me to communicate better with patients and other professionals	4.6 (0.7)	4.9 (0.3)	0.3 (0.8)**
14. I would welcome the opportunity to work on small group projects with other health and social care students/professionals	4.6 (0.5)	4.8 (0.4)	0.2 (0.6)**
15. I would welcome the opportunity to share some generic lectures, tutorials, or workshops with other health and social care students/professionals	4.6 (0.6)	4.8 (0.4)	0.3 (0.6)*
16. Shared learning and practice will help me clarify the nature of patients' or clients' problems	4.5 (0.6)	4.8 (0.4)	0.3 (0.5)**
Roles and responsibilities			
17. Shared learning before and after qualification will help me become a better team worker	4.7 (0.5)	4.9 (0.2)	0.2 (0.4)**
18. I am not sure what my professional role will be/is	2.3 (0.9)	1.5 (0.7)	0.8 (0.9)**
19. I have to acquire much more knowledge and skill than other students/professionals in my own faculty/organisation	2.7 (1.0)	2.8 (1.2)	0.2 (1.2)

Note: Wilcoxon Signed Rank Test, \* < 0.05; \*\* < 0.01.

professionals to ensure the best possible care for patients”. Other students said that they enjoyed and valued their IPE placement, for example, one student wrote, “great experience. Highly recommended”, whilst other students believed that IPE placements are

important and should be continued, “[IPE is] very important and should be core for all professions”.

## Discussion

Our findings show that an IPE student placement within a RACF can have a positive perceived impact on students’ attitudes towards older adults and increase their readiness for interprofessional learning. These are important findings because RACF can meet some of the pressure to provide IPE experiences for students, offering an alternative to the traditional settings for IPE, namely Stroke and Palliative Care Unit placements or the logistically and financially challenging student led wards. With the evidence that residents benefit from such interactions, all groups gain when RACF become a learning centre (Elliott, Annear, Bell, Palmer, & Robinson, 2015; Reilly et al., 2014; Seaman, Bulsara, & Saunders, 2014). For example, a cross-sectional study by Ross, Duigan, Boyle, and Williams (2014) found relatively similar ASD subscale scores for paramedic students to the scores of students in this study. However, our study with the pre-post IPE programme showed that attitudes can be influenced as they became more positive, especially for the “Personal Acceptability—Unacceptability” subscale (49.47–41.9).

Much literature documenting students’ attitudes towards older adults is mixed; however, recent literature suggests that students have more positive attitudes towards older adults than originally thought (Lea et al., 2015; Rodgers & Gilmour, 2011). Our results showed that students had started with quite positive views of older adults, but as noted, became more positive following IPE placement. There was a large variation in the amount of change in ASD subscales from pre- to post-attachment (see Table 2), suggesting whilst changes in attitudes may have been significant they are not entirely representative.

Difference in attitudes among the students has been suggested to be due to individuals’ previous exposure to aged care (Neville & Dickie, 2014), or the variety of and challenging nature of nursing tasks in aged care say, for example, compared to occupational tasks of other professions. It is proposed by Brown, Nolan, Davies, Nolan, and Keady (2008) that the type of engagement during student placements may be important, and we believe the IPE programme offered purposeful engagement.

In terms of interprofessional attitudes to learning, the RIPLS revealed a statistically significant positive change in two out of the four subscales, “teamwork and collaboration” and “positive professional identity”, indicating an increase in students’ readiness for interprofessional learning. As the students didn’t participate in additional IPE activities outside the placement and the placement was continuous in nature, it indicates that it was the IPE programme in a RACF, rather than other experiences, that brought about this beneficial change. It should be noted that pre-placement RIPLS scores were on average high and positive, meaning that students were already exhibiting a readiness to learn interprofessionally prior to their RACF placement.

A recent study conducted by Lawlis et al. (2016) assessed a small group of students ( $n = 12$ ) from three professions

attitudes to interprofessional learning using the RIPLS tool before and after a 3-week IPE programme in a RACF. Significant change occurred in one RIPLS item: “Learning between health and social care students before qualification and for professionals after qualification would improve working relationships after qualification/collaborative practice” in Lawlis et al. (2016) (4.0–4.7,  $p = 0.028$ ) and similarly increased significantly in this study, although pre-placement values in this study were already higher than those in Lawlis et al. (2016). This research builds on the prior study using a larger sample size and longer exposure to IPE with a greater variation in professions and has found a larger amount of change in RIPLS items, suggesting that IPE placement in RACF can influence students’ readiness for interprofessional learning.

A similar pre- and post-intervention study by (Wakely, Brown, & Burrows, 2013) involving 38 students across seven professions similarly showed a significant difference in the RIPLS for three out of the four subscales, which included “teamwork and collaboration”, “negative professional identity”, and “positive professional identity,” after students participated in monthly interprofessional learning modules online. The starting mean pre-RIPLS scores were different across all four subscales with a mean score for “teamwork and collaboration” of 38.5 compared to this study of 42.1, “negative professional identity” mean score of 6 compared to 4.2, “positive professional identity” mean score of 16 compared to 18.2, and “roles and responsibilities” mean score of 6 compared to 9.6, suggesting that the students in this study were more ready for interprofessional practice at the beginning of their placement although not in the “roles and responsibilities” subscale (Wakely et al., 2013).

Another pre- and post-intervention study by Gunaldo et al. (2015) reported change in only one subscale, “roles and responsibilities” after students enrolled in a short course for IPE, which also had a similar pre-placement RIPLS subscale score for “roles and responsibilities”.

As the students have not been followed up long term, we cannot determine if the increased capacity in readiness for interprofessional learning is being sustained over an extended period of time. One study that has looked at the sustainability of RIPLS measurements after a three to 4-month period post-intervention and suggested the change in two subscales post-intervention was not maintained. The IPE intervention, however, was a 1-day workshop (Bradley, Cooper, & Duncan, 2009), whilst in our study, students were involved for a minimum of 2 weeks through to a maximum of 13 weeks, though our study indicated that length of exposure did not impact on the final outcome.

In terms of study limitations, whilst both the ASD and RIPLS reported improvements in student’s attitudes to older adults and readiness for interprofessional learning after an IPE placement in a RACF, the small sample size and large variability of change suggest that the results should be treated with caution. The extent of change in both the ASD and RIPLS was statistically significant, but whether it is meaningful in terms of changed attitudes or attitudes is unclear. Ongoing research using the tools across a range of settings will be helpful to determine what is a clinically meaningful change. Additionally, the RIPLS tool has recently been critiqued, and conclusions made by

Mahler, Berger, and Reeves (2015) indicate that the RIPLS has not been appropriately validated although widely used. There were further limitations to the study. The low response rate for the open-ended questions on the RIPLS surveys possibly due to questionnaire fatigue or limited time made the small number of responses difficult to assess in terms of important and meant quantitative findings that could not be explained further. Secondly, the sample size for individual professions was too small to analyse separately.

## Concluding comments

IPE focused student placements within a RACF have the potential to positively influence some student's attitudes towards the older adult as well as increase student's readiness for interprofessional learning. This is important that in ensuring, students become skilled and knowledgeable in the speciality of aged care practice as we are likely to see an expansion of the aged care workforce to meet the demands of an ageing population. Further research is needed to determine the true influence of IPE student placements in RACF using greater sample size and appropriately validated evaluation tools.

## Acknowledgement

The authors wish to thank all the residents, staff, students, and family in participating aged care facilities for their help and participation.

## Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

## Funding

This study was funded by the National Health and Medical Research Council (NHMRC) Cognitive Decline Partnership Centre (CDPC).

## ORCID

Rosemary Saunders  <http://orcid.org/0000-0001-6213-4694>

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