

Education in peer learning for allied health clinical educators: A mixed methods study

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Abstract

Background: Peer-assisted learning (PAL) may enhance learning opportunities for students placed in pairs, and address the demand for student placements. The study aimed to (1) evaluate the effect of providing education on PAL to clinical educators (CEs) on activities undertaken by students and (2) explore CE and student perceptions of the clinical education experience.

Method: Allied health CEs attended a workshop in PAL. Self-reported student activity was collected and CE responses to the education were measured using forms and survey tools. Qualitative data on student and CE experience were collected via focus groups.

Results: CEs reported that the workshop was useful and significantly improved their confidence to facilitate PAL. CEs also reported a perceived change in clinical education practices. After the workshop, students reported being twice as likely to observe both their CE and peer perform a patient assessment, 34% less likely to be observed by their CE when performing a treatment and 40% less likely to work with patients independently (without CE or peer). The qualitative analysis revealed three themes: PAL enhanced the learning environment; additional skills and preparation are required for success; and PAL may present challenges associated with peer compatibility and time for individualised feedback.

Conclusions: Education in facilitating PAL improved perceived confidence of CEs. Student activity changed most significantly in the amount of peer and supervisor observation. Both students and CEs reported that PAL enhanced the learning environment but noted that education and preparation are important to mitigate challenges associated with sub-optimal peer relationships and individualised feedback.

Keywords: peer-assisted learning; clinical education; allied health.

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Introduction

The increasing demand for healthcare workers globally (WHO, 2006) and the associated challenges of providing healthcare students with adequate amounts of high quality clinical education are driving innovation in approaches to work-based education. Across Australia, the health sector is currently experiencing, and predicting further, workforce shortages (HWA, 2012). Simultaneously, the tertiary sector is increasing student intake to meet workforce demands (Universities Australia, 2012). The combination of these events is increasing pressure on current allied health practitioners to provide quality clinical education to a growing number of students.

Moving from the 1:1 clinical educator:student ratio to the “multiple student to educator” ratio has been offered as a solution to meet the growing demand in the allied health professions. The 2:1, or paired model, where two students are supervised simultaneously by one clinical educator, may offer relief to capacity demands within existing resources (compared with 1:1), and positive examples of its use have been demonstrated in some allied health professions (Avi-Itzhak & Kellner, 1995; Bartholomai & Fitzgerald, 2007; Blakely, Rigg, Joynson, & Oldfield, 2009; Bruce, Parker, & Herbert, 2001; Claessen, 2004; Ladyshevsky, 1995; Ladyshevsky, Barrie, & Drake, 1998; Martin & Edwards, 1998; Mason, 1998; Rindfleisch et al., 2009; Roberts et al., 2009; Triggs-Nemshick & Shepard, 1996). The model’s benefits have been attributed to peer-assisted learning (PAL), the acquisition of knowledge and skills through a process whereby students (of similar level) work together collaboratively (Topping & Ehly, 1998). The benefits of PAL in clinical education are commonly cited in reviews as improved learning opportunities; increased social support, resulting in optimal student confidence levels; improved acquisition of problem solving, self-reflection and evaluation skills; and a reduced dependence on the clinical educator (Baldry-Currens, 2003; O’Connor, Cahill, & McKay, 2012; Secombe, 2008). Productivity gains may also be possible using a paired model (Ladyshevsky, 1995; Ladyshevsky et al., 1998).

Few studies have investigated the effect of paired learning models on measures of competency in allied health professions. DeClute and Ladyshevsky (1993) examined clinical competency scores for physiotherapy students in a 2:1 compared with a 1:1 model. They found significantly higher scores in all aspects of competency for the paired model. However, this was a retrospective study that did not control for confounding differences in student and educator cohorts. Our team conducted a randomised trial with physiotherapy students to determine the effect of implementing PAL strategies on student performance outcomes (Sevenhuysen et al., 2014). We concluded that PAL activities could be incorporated into the paired model without a detrimental effect on student outcomes. However, both students and clinical educators preferred a traditional approach to paired placements over the prescribed PAL model, with the rigidity of our standardised PAL model cited as the major source of dissatisfaction. The study recommended using a flexible approach that may be more appealing to educators, and provides greater alignment with education principles suggesting effective teaching involves an individualised progression of increasingly complex tasks as knowledge and skill increase (Merrill, 2009).

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PAL may or may not occur naturally in a 2:1 model. The literature frequently highlights the importance of establishing the expectations of collaboration, communication and cooperation with those operating in a 2:1 model (Bartholomai & Fitzgerald, 2007; Dawes & Lambert, 2010; Farrow, Gaipman, & Rudman, 2000; Flood, Haslam, & Hocking, 2010; Martin & Edwards, 1998; Martin, Morris, Moore, Sadlo, & Crouch, 2004; Moore, Morris, Crouch, & Martin, 2003). Students require “explicit teaching” by clinical educators in the skills of delivering constructive feedback, “turn-taking” and reflective practice (Sussman, Bogo, & Globerman, 2007). There is also a need for education of the clinical educator in both the theory and application of PAL to enhance confidence in using the model, address concerns relating to the model’s disadvantages and facilitate best use of a clinical educator’s time (Baldry-Currens & Bithell, 2003). Engaging clinical educators in PAL education has been demonstrated to increase self-rated confidence to facilitate PAL in the clinical setting (Sevenhuysen et al., 2013). However, little is known as to whether engaging clinical educators in PAL education will impact on the learning activities students are exposed to or whether it will enhance the education experience for the student or educator.

The aim of this study was to assess the impact of providing PAL education to clinical educators. Two areas were evaluated: 1) the learning activities undertaken by the student and 2) the perceptions of the clinical education experience reported by both the clinical educator and the student. Satisfaction with the education provided was also assessed.

Methods

This was a mixed methods study using a stepped wedge design (Brown & Lilford, 2006). This design allowed all participants to receive the intervention, although the order in which they received it was determined at random. The design is recommended where it is predicted that the intervention will do more good than harm, and is particularly relevant for this study, as education in clinical teaching methods is highly sought after and carries negligible risk. Quantitative data collected across the project periods (or “steps”) allowed analysis of student activity and clinical educator perceptions in response to the education (Figure 1). Qualitative data was collected via surveys at each “step” and in focus groups that were conducted at the end of the project period (Figure 1).

Data collection methods were designed *a priori* to measure the response to the education at four levels:

1. A feedback form was completed by attending clinical educators immediately before and immediately after the education session to evaluate various aspects of perceived confidence to facilitate PAL, using a Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.
2. A survey of all clinical educator participants was administered at each step (Figure 1) to gather information about their clinical education experiences. This included responses to questions addressing educators’ perceived confidence and stress levels, perceived changes to education practices, and satisfaction and frequency of facilitating PAL, using a Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

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3. Students documented various learning activities (including number of times treating patients, observing, providing peer feedback and engaging in facilitated peer-learning activities) during placement across the study period. A tool to measure such activity was not found in published literature; therefore, we developed and tested a tool (Student Activity Record) during a pilot study (Sevenhuysen et al., 2013; Sevenhuysen et al., 2014).
4. Qualitative data about the clinical educator and student clinical education experience were collected via focus groups on completion of the data collection period (Figure 1). Additional qualitative data were collected from clinical educators via the open-text responses on the surveys conducted at each step (see Figure 1).

The study was conducted in a tertiary metropolitan health service from March to October 2013. Participating sites included three acute hospitals, one sub-acute inpatient centre, one outpatient rehabilitation centre, one community health centre and two inpatient mental health facilities. Allied health clinical educators (clinicians with student supervision responsibilities as part of their clinical role) were invited to participate if they had no previous formal education in PAL. Clinical educators were

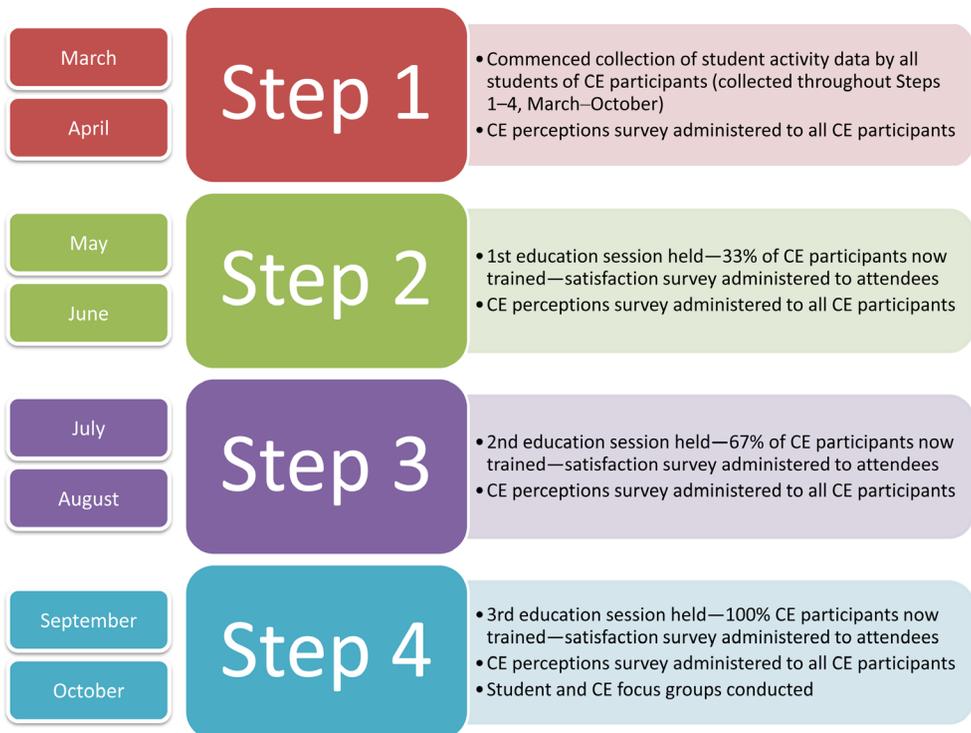


Figure 1. Study design.

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assigned one or more pairs of students across the study period via the usual processes followed within that discipline. They were allocated to one of three education sessions (held approximately 2 months apart) based on logistical considerations.

Students were from various universities within metropolitan Melbourne. Students were invited to participate if they were completing a clinical placement as part of an entry-level program and were being supervised in a pair by eligible clinical educators enrolled in the study. The study protocol was approved by the health service and university human research ethics committees (13073B). Informed consent was obtained from all participants.

The intervention was in the form of a 3-hour interactive workshop. The session was designed based on published literature and findings from a trial in physiotherapy conducted in 2011 (Sevenhuysen et al., 2013). The content included the theoretical foundations and practical applications of PAL, and the workshop objectives were to:

- demonstrate how to structure a paired student placement utilising PAL tools and activities
- identify how to utilise the advantages and minimise the disadvantages of paired placements
- discuss approaches to the management of sub-optimal peer relationships.

Quantitative data analysis was conducted using STATA/IC version 13. The responses relating to perceived confidence to facilitate PAL immediately before and after each education session were pooled across steps and compared using the Wilcoxon signed-rank test for matched data.

Differences in clinical educator survey responses comparing periods when educators had not been exposed to the education intervention and when they had been exposed were examined using ordered logistic regression with fixed-effect terms for the exposure to the intervention and the step (time period) in the stepped wedge design (treated as a categorical variable). Analysis included clustering by participant study ID so that the analysis would appropriately account for repeated observations by individual participants using robust variance estimates.

Rates that students participated in different learning and feedback activities were compared for periods when their clinical educators had not been exposed to the education intervention and when they had been exposed. Mixed effects negative binomial regression was used with fixed-effect terms for the exposure to the intervention and the step (time period) in the stepped wedge design (treated as a categorical variable). Random effect terms were used for student, nested within educator, nested within professional discipline to account for the multi-level structure of this data. Statistical significance level was set at $p < 0.05$ for all quantitative data.

The qualitative data was coded independently by two authors (SS and JT) using thematic analysis (Miles & Huberman, 1994) to uncover key themes. Disagreements were negotiated through consensus, thus adding rigour to the analysis process (Bearman & Dawson, 2013). The results were reported back to participants for further validation.

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Results

Demographics

Clinical educators (n = 30) from seven allied health professions, working in acute, subacute, community and mental health settings participated (Table 1). All but two clinical educators felt confident or very confident in their clinical practice abilities. In contrast, only 60% were confident in their clinical education abilities. Four of 30 clinical educators had prior experience with PAL but no formal education. Students (n = 69) from seven allied health professions participated.

Participant flow

Thirty-six clinical educators attended the education sessions. Of those, 32 went on to supervise or co-supervise 69 different students, in pairs. Where students were co-supervised, both clinical educators attended the education session. Seven students participated in two placements within the study period (supervised by different clinical educators). Thirty of the 32 clinical educators (94%) who supervised pairs of students completed the survey, and 14 (44%) participated in the focus groups. Forty-seven of the 69 (68%) students returned completed activity records, and 36 (52%) participated in the focus groups.

Table 1
Student and Clinical Educator (CE) Participant Demographics

Demographic	Category	CE n (%)	Student n (%)
Gender	F	26 (87%)	56 (81%)
	M	4 (13%)	13 (19%)
Discipline	Dietetics	3 (10%)	8 (18%)
	Exercise physiology	1 (3%)	2 (4%)
	Music therapy	3 (10%)	4 (9%)
	Occupational therapy	7 (23%)	11 (24%)
	Physiotherapy	4 (13%)	11 (24%)
	Podiatry	4 (13%)	2 (4%)
	Social work	8 (27%)	7 (16%)
Years of Clinical Education Practice	Less than 1	5 (17%)	
	1 to 2	7 (23%)	
	3 to 5	9 (30%)	
	6 to 10	8 (27%)	
	Greater than 10	1 (3%)	
Confidence in Clinical Education Practice	Not very confident	1 (3%)	
	Neutral	11 (37%)	
	Confident	18 (60%)	
Prior Experience with PAL	Yes	4 (13%)	

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Clinical educator workshop evaluation

Participants found the workshop very useful (75%) or useful (25%), and significant improvements were reported in perceived ability to structure, maximise the advantages and minimise the disadvantages of a PAL placement (Table 2).

Clinical educator survey

Table 3 shows results from the clinical educator survey. There was a significant response ($p = 0.04$) to the education for the statement: “My education style and behaviours had changed recently”, with the median moving from “disagree” to “agree”. No significant

Table 2
Clinical Educator Perceived Confidence Pre and Post Workshop

Statement	Pre	Post	p
	Median (IQR)	Median (IQR)	
I can demonstrate how to structure a paired-student placement utilising PAL tools & activities	2 (1, 2)	4 (4, 4.25)	0.00
I can identify how to utilise the advantages & minimise the disadvantages of paired-student placements	2 (1.75, 3)	4 (4, 4)	0.00
I can discuss approaches to management of sub-optimal peer relationships	2 (1.75, 3)	4 (4, 4)	0.00

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree
IQR = interquartile range

Table 3
Clinical Educator Survey Results

Statement	Before education	After education	p
	Median (IQR)		
I was effectively able to observe and assess students’ clinical ability/competency	4 (4, 4.5)	4 (4, 4)	0.56
Providing clinical education was personally stressful	2 (2, 3.5)	3 (2, 3.75)	0.63
There was sufficient time available for client service	4 (2, 4)	4 (3, 4)	0.26
My students displayed a high degree of anxiety	3 (2, 3.5)	2 (2, 3)	0.60
The clinical education I provided was effective	4 (4, 4)	4 (4, 4)	0.12
My clinical education duties were burdensome	3 (2, 4)	3 (2, 3.75)	0.63
I facilitated peer-assisted learning activities with my students	2 (1, 3)	4 (3, 4)	0.51
My educational style and behaviours have changed recently	2 (2, 3)	4 (3, 4)	0.04
I was satisfied with the outcome of the peer-assisted learning strategies I used with my students	1 (1, 3)	3 (2, 4)	0.33

Note:
1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree
IQR = interquartile range

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responses to education were demonstrated in the statements relating to student anxiety, clinical educator burden or the perceived effectiveness of clinical education provided. Although there was a change in the median response to the statements “I facilitated peer-assisted learning activities with my students” and “I was satisfied with the outcome of the peer-assisted learning strategies I used with my students”, over the time periods, this did not reach statistical significance.

Student activity records

In 17 of the 21 items recorded by students, there were no significant changes in activity undertaken on placement (Table 4). Significant variations were found both within and between disciplines in the type and number of learning activities students were undertaking. After clinical educator attendance at the education session, students were twice as likely to observe their clinical educator perform an assessment, twice as

Table 4
Student Activity Record Results

Activity	Before education	After education	IRR (95% CI)	p
	Frequency (occurrences/week) Mean (SD)			
Student observed clinical educator performing an assessment	2.01 (3.25)	3.19 (3.23)	2.08 (1.06–4.09)	0.03
Student observed clinical educator performing intervention	3.15 (4.28)	1.94 (2.95)	0.90 (0.49–1.65)	0.73
Clinical educator observed student performing an assessment	2.14 (3.15)	1.92 (2.73)	1.16 (0.81–1.68)	0.41
Clinical educator observed student performing a treatment	4.19 (5.59)	1.59 (2.96)	0.66 (0.46–0.94)	0.02
Clinical educator observed student pair with a patient	1.95 (4.46)	0.90 (1.73)	1.03 (0.57–1.84)	0.93
Student received oral feedback—without peer present	3.00 (4.09)	3.48 (3.08)	1.47 (0.94–2.29)	0.09
Student received feedback related to placement assessment—without peer present	0.83 (1.29)	0.81 (1.23)	0.78 (0.42–1.44)	0.43
Student observed peer performing an assessment	1.04 (1.76)	2.04 (1.50)	1.99 (1.22–3.25)	0.01
Student observed peer performing a treatment	1.33 (2.17)	0.58 (1.24)	0.95 (0.46–1.94)	0.89
Student received written feedback from peer	0.28 (0.77)	0.40 (0.86)	2.08 (0.72–5.95)	0.17
Student worked with patient independently (without clinical educator or peer)	6.33 (7.61)	4.88 (4.99)	0.6 (0.39–0.91)	0.02
Student worked with patient and peer (without direct clinical educator observation)	2.39 (5.42)	1.23 (1.98)	0.76 (0.32–1.79)	0.53
Number of patients seen per student	18.43 (16.31)	14.21 (10.40)	1.04 (0.84–1.29)	0.72

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Table 5
Qualitative Themes and Sub-themes From the Survey and Focus Groups

Theme	Sub-theme	Illustrative Quotes
PAL enhanced the learning environment	Greater learner autonomy	<p>"We like the responsibility and the respect we've been given to formulate that [PAL] time ourselves ... I think everyone else could use their time responsibly. I think it's important to own the time rather than your supervisor." (student)</p> <p>"By Week 5 they were seeing patients on their own [in the PAL placement]. Obviously, we choose the patients they will see, but they were seeing patients on their own. In other placements, they might not see patients on their own till Week 8." (clinical educator)</p>
	Improved learner confidence and reduced anxiety	<p>"It certainly is less daunting when you're speaking to patients first time, learning those skills it's good to have someone by your side I guess. Having that emotional support and having someone you can debrief with, and if you're ever unsure of anything check in with them, check your understanding and make sure you're not doing the completely wrong thing. I felt a lot more comfortable." (student)</p> <p>"I found that if I delegate a patient to both of them, they perform much, much better with the patient rather than being one on one. They learn from each other, they exchange ideas, things like that." (clinical educator)</p>
	Improved feedback capability	<p>"I guess you become more confident in giving feedback and become more skilful and tailor it." (student)</p> <p>"Towards the end, I think they're better at giving feedback to one another ... which takes the pressure off you giving the feedback all the time. Often if they're giving feedback to each other, they're picking up on things you would pick up anyway." (clinical educator)</p>
	Increased collaborative skills	<p>"In a hospital setting where you have to work in a team and working with other people, which is really important with PAL, but it's very important with day-to-day work." (clinical educator)</p>
PAL requires additional skills & preparation	Facilitating PAL is a skill that takes time to develop	<p>"There had to be structure; there had to be their feedback time and making it clear that was feedback time and making sure they had formal supervision one on one but also peer supervision together." (clinical educator)</p> <p>"I think for us it's the initial process of learning. I am hoping by next year we will be able to do it more quickly and have a better system in place." (clinical educator)</p>
	Preparation is critical for success	<p>"I think it depends; you can certainly tell the ones [clinical educators] that have had their education compared to the ones that hadn't." (student)</p>
PAL challenges	Structure of PAL in the busy environment	<p>"I found, in the end, it became less formal than I wanted it to be. That's just my day because we're used to changing things on the run, and I found it really difficult to keep the PAL model formalised in that setting." (clinical educator)</p>
	Cohesion of the student relationship	<p>"You need to have rapport; you can't do it with just anyone. You need to have rapport with your peer. If you have no rapport, you won't get anywhere." (student)</p>
	Reduced individualised feedback	<p>"I think the supervisor realising that you are two different people is really important." (student)</p>

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likely to observe their peer perform an assessment, 34% less likely to be observed by their clinical educator when performing a treatment and 40% less likely to work with patients independently (without clinical educator or peer).

Open survey questions and focus groups

Key themes were derived from the open questions on the survey and from the six follow-up focus groups (Table 5). Three hundred and fifty-seven comments were analysed, and three key themes emerged. The largest number of comments related to participants' perception that PAL enhanced the learning environment. Both clinical educators and students commented that PAL requires additional skills and preparation to be successful. Finally, a number of PAL challenges were identified, including student compatibility, structuring PAL in the unpredictable clinical environment and reduced time for 1:1 feedback.

Discussion

This mixed method study is the first to analyse the effect of educating clinical educators in the practice of PAL across multiple allied health professions. The qualitative data collected indicates that clinical educators and students experienced many benefits using PAL and that education in facilitating PAL appeared to have played a role in preparing them to successfully implement a sustainable PAL model. After attending the education session, clinical educators reported a perceived recent change to clinical education practice but not specifically in the area of facilitating PAL. Both these reports were supported by student activity records that demonstrated changes in the frequency of some learning activities undertaken, but most significantly in the area of observation of others.

In discussing experiences with the PAL model, participants identified key elements that contributed to enhancing the learning environment. Firstly, the presence of a peer enabled sharing of ideas and experiences that students used to build upon existing knowledge. Clinical educators reported this facilitated greater autonomy in students. Clinical educators could assign a patient-based task (assessment, interview, intervention) to two students, confident that together they were more likely to perform the task safely and reach the desired outcomes. This is meaningful because learning environments that encourage students' participation in patient care have been identified as important contributors to learning (Newton, Henderson, Jolly, & Greaves, 2014). Secondly, clinical educators identified that the mutual support peers offered each other gave the students more confidence, enabled debriefing (including the acknowledgement of emotions) and instilled a sense of belonging. It is, therefore, not a surprising outcome that educators reported an improved learning environment. Students and clinical educators indicated that students could ask each other questions that they would hesitate to ask a clinical educator for fear of judgement and the possible effect on assessment outcomes. These findings are in line with previous research (Baldry-Currens, 2003; Blakely et al., 2009; Ladyshevsky, 1993; Martin et al., 2004; Secombe, 2008) and supported by a further study investigating the conditions under which learning occurs naturally within groups (Edmondson, 1999). Edmondson's (1999) study recommended that a climate of safety

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and support enabled group members to embrace error, seek feedback and make positive changes to output. Reducing fear and increasing confidence may also improve learners' responsiveness to feedback (Eva et al., 2012).

Although the data revealed a small number of statistically significant changes in reported student activity in response to education, the qualitative data from both students and clinical educators highlighted the importance of preparation for PAL placements. Clinical educators and students praised the role of the education on improving the PAL experience. It is possible that the education may have altered the structure and potentially enhanced the effectiveness of PAL already occurring, without impacting on the reported frequency of various activities. This notion was evident in the qualitative data:

Before I did the PAL workshop, when they would observe each other, I would say "just sit in and take notes down". Since PAL [training] I made it more formalised with all the things they should be looking out for and a comments section. I would give them that, and at the end, they would give feedback. I think that helped because they had something to do; they were more active. It made them, I guess, be more part of it. (clinical educator)

Two items demonstrating a significant effect from education were an increase in observations students made of their clinical educator and peer. Observing a clinical educator in action is a way of establishing the benchmark or performance standard, enabling students to compare their own or their peers' performance and provide effective feedback (Archer, 2010; van de Ridder et al., 2008). The PAL education session provided in the study outlined the rationale behind collaborative learning, including theory of the steps of learning, importance of observation as a foundation for understanding what needs to be learned and reflection as a means to make adjustments and build upon existing knowledge (Johnson & Johnson, 1990). Attendees were provided with specific observation and reflection tools for use with students. This aspect of the education may have resonated with the participants and may have been easier to implement immediately after the session in comparison with other, more complex PAL tasks. This may also explain why a similar increase in peer observation was also reported by students after the education session.

Both clinical educators and students commented that PAL helped students develop important skills for the workplace. The collaboration required of students to successfully participate in PAL was perceived as building skills such as communication, negotiation and teamwork, which may have implications for their future practice as health professionals (Hall & Weaver, 2001). Students also reported developing skills in observation, evaluative judgement and feedback through PAL, which may impact on capacity to educate students and colleagues in the future. This same finding was reported in a study by Tai, Canny, Haines and Molloy (2015) examining peer learning in medical clinical education.

Learning to facilitate PAL was reported by clinical educators as a complex skill that required application and ongoing practice and refinement in the workplace. It is possible that the amount of PAL occurring may increase over the longer term, as clinical

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educators consolidate their skills, and this may explain why significant changes were not reported in other PAL activities during the study period. This may also explain why the statement “I facilitated PAL” moved from “disagree” to “agree” on the clinical educator survey across the study period. Further research is warranted to investigate the longer-term effects of participation in PAL on both student and clinical educator outcomes.

The reported student activity data indicated that students were less likely to be observed by their clinical educator when performing a treatment and less likely to work with patients independently (without clinical educator or peer) after their clinical educator attended an education session. It may be that some elements of clinical placement activity were reduced to accommodate the increased observation. The effect of this change on students learning outcomes is not known, and further research is required to determine how exposure to various learning activities influences student performance.

Providing education only to clinical educators is a limitation in this study design, and this limitation was identified by participants through their qualitative responses. To promote students as active learners, ideally both clinical educators and students could be involved in education and preparation for PAL.

This project was conducted in one health service with one group of clinical educators, which limits generalisability, though engaging multiple allied health disciplines was a strength in this respect. Clinical educator participants were volunteers and, therefore, a self-selecting group. Issues may have been missed that related specifically to clinical educators who did not volunteer. For example, clinical educators who volunteered may have been particularly enthusiastic or motivated about their clinical education role or PAL. There was potential for response bias in the survey, as participants may have built a relationship with the lead investigator through the research process. Participant survey responses may also have been influenced by the information they received in the workshop, allowing for greater recognition of PAL activities that were previously not recognised as such.

Conclusion

Education in facilitating PAL improved the perceived confidence of clinical educators and resulted in a self-reported change in their education behaviours. There was a statistically-significant increase in the reported incidence of students undertaking observation of their clinical educator and their peer, and a reduction in independent work with patients. Both students and clinical educators reported that PAL enhanced the learning environment but noted that education and preparation are important to reduce challenges associated with managing sub-optimal peer relationships and tailoring feedback to the individual. Students reported the benefits of PAL in improving agency, reducing anxiety associated with clinical placements and improving their capacity to give and receive feedback. Modifications to the education intervention, such as supporting clinical educators to maintain individualised feedback in the PAL model and the development of a parallel PAL education session for students, may be important design features to consider in optimising the influence of PAL in the clinical setting.

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