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Research

Physiotherapy students and clinical educators perceive several ways in which incorporating peer-assisted learning could improve clinical placements: a qualitative study

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KEY WORDS

Education
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ABSTRACT

Question: What are the experiences of students and clinical educators in a paired student placement model incorporating facilitated peer-assisted learning (PAL) activities, compared to a traditional paired teaching approach? **Design:** Qualitative study utilising focus groups. **Participants:** Twenty-four physiotherapy students and 12 clinical educators. **Intervention:** Participants in this study had experienced two models of physiotherapy clinical undergraduate education: a traditional paired model (usual clinical supervision and learning activities led by clinical educators supervising pairs of students) and a PAL model (a standardised series of learning activities undertaken by student pairs and clinical educators to facilitate peer interaction using guided strategies). **Results:** Peer-assisted learning appears to reduce the students' anxiety, enhance their sense of safety in the learning environment, reduce educator burden, maximise the use of downtime, and build professional skills including collaboration and feedback. While PAL adds to the clinical learning experience, it is not considered to be a substitute for observation of the clinical educator, expert feedback and guidance, or hands-on immersive learning activities. Cohesion of the student-student relationship was seen as an enabler of successful PAL. **Conclusion:** Students and educators perceive that PAL can help to position students as active learners through reduced dependence on the clinical educator, heightened roles in observing practice, and making and communicating evaluative judgments about quality of practice. The role of the clinical educator is not diminished with PAL, but rather is central in designing flexible and meaningful peer-based experiences and in balancing PAL with independent learning opportunities. **Registration**: ACTRN12610000859088. [**Sevenhuysen S, Farlie MK, Keating JL, Haines TP, Molloy E (2015) Physiotherapy students and clinical educators perceive several ways in which incorporating peer-assisted learning could improve clinical placements: a qualitative study. *Journal of Physiotherapy* 61: 87–92**]

Introduction

Health services that provide clinical education are feeling significant strain as university programs and student numbers grow[1] in response to health professional workforce shortages.[2] Approaches to clinical education are also being examined for quality and sustainability.[3,4] Clinical educators report that student education can be burdensome and stressful.[5,6] Students report that placement experiences can provoke high levels of anxiety,[7] and sometimes do not provide adequate learning experiences.[3]

Universities have adopted student-centred, collaborative learning models, supported by research;[8] however, education in the clinical setting has largely retained traditional models. In physiotherapy clinical education, a clinical educator can supervise one student, or more than one student concurrently. Where students work together in pairs or larger groups, clinical educators can consider implementing peer-assisted learning (PAL). Reviewers in this field have concluded that PAL models enhance placement outcomes and carry the additional benefit of addressing capacity issues.[9,10]

Peer-assisted learning has been defined as 'the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions'.[8] The company of another student on placement appears to reduce student anxiety and aid learning.[9,10] Advantages for the clinical educator, such as reduced burden, have also been reported,[11,12] but without high-quality evidence, the 2:1 model cannot be confidently recommended over the 1:1 approach.[13]

How PAL placement models are enacted in practice might differ with placement environment, the effectiveness of the peer relationship, and the beliefs and preparation of the student and educator.[11,14,15] Peer interactions can vary from social

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support to formalised peer-assisted patient-based learning tasks.

A recent randomised, controlled trial, comparing a formalised PAL model with a traditional approach for pairs of physiotherapy students, found similar student performance outcomes.[16] However, both students and clinical educators reported dissatisfaction with the rigidity of the prescribed PAL model. They reported plans to use more flexible PAL models in the future. A qualitative study utilising focus groups to enable an in-depth investigation of educator and student experience of PAL may provide insights into the aspects of PAL that are more satisfactory to incorporate into paired student placement models, which will support further refinement of the PAL model.

Therefore, the research question for this study was:

What are the experiences of students and clinical educators in a paired student placement model incorporating facilitated peer-assisted learning activities, compared to a traditional paired teaching approach?

Method

Design

Participants in this study had participated in a prospective, cross-over, randomised trial[16] that compared two models of physiotherapy clinical education: a traditional paired model and a PAL paired model.[17] Students were randomly paired and allocated to either the traditional or PAL model for their 5-week cardiorespiratory and neurology placements. Student pairs remained the same for both placements.

The PAL model[17] included PAL-specific standardised activities (Table 1), in addition to typical learning activities such as involvement in patient care, team meetings, tutorials and administration. PAL activities could be aligned to student learning needs, but a minimum number of activities was mandated (Table 1). The traditional model involved the usual practice of clinical educators supervising students in pairs. In the traditional model, the design of the placement activities was at the discretion of the educator and PAL activities were not specifically facilitated or scheduled.

A physiotherapist, who was external to the research team, health service and university, facilitated three focus groups of students (FG1, FG2, FG3), after they had participated in both models, to investigate their experiences. A member of the research team, who was employed by the university but had no relationship with the health service, facilitated two focus groups of clinical educators (FG4, FG5). Both facilitators had extensive experience in leading focus groups. The opening focus group questions were broad and designed to invite participants to describe their experiences. The questions then progressively focused on how PAL was utilised and how it contributed to, or detracted from, the educational experience in both models. Focus groups were 60 to 90 minutes in duration and were audio-recorded and transcribed verbatim.

Participants

The third-year students were studying for a 4-year undergraduate physiotherapy degree. The clinical educators were physiotherapists from a tertiary metropolitan health service (including acute, subacute and community settings) with student supervision responsibilities as part of their role.

Data analysis

Qualitative analysis was based on Thematic Analysis techniques.[20] Three researchers (SS, MF, EM) independently 'open' coded the data for themes and subthemes. An extended analysis framework was developed, based on these triangulated codes, cross-checked against the transcripts, circulated to all researchers, discussed, and adjusted to reflect any key themes in the data.

Results

Twenty-two students and 12 educators participated in the focus groups. Their demographic characteristics are presented in Table 2.

Qualitative analysis

Three overarching themes emerged: what PAL can do, what PAL cannot replace, and cohesion of the student-student relationship. The subthemes relating to these broader themes are bolded within the text and summarised in Boxes 1 to 3.

Theme 1. What peer-assisted learning can do

Students described clinical education as a stressful experience, but the presence of a peer alleviated some of the perceived pressure. Participants used the term 'PAL' as an umbrella term to describe many forms of peer interaction, from informal peer support in the lunchroom to formalised patient-based peer learning tasks. Students considered that informal peer support during both PAL and the traditional model, and structured support during PAL, **reduced anxiety** associated with clinical education.

> *Instead of just being thrown in the deep end, to do a subjective [history taking] on your own, complete an assessment on your own, it was good to have that person there to bounce ideas off. We could write out a plan together and we followed through together. Just having the confidence, reliance on someone else, made it easier* (student, FG2).

The notion of learning through informal conversations was articulated by students.

> *I think I learnt more [in PAL]. We helped each other to reflect. You could talk about what you did and how you could do it differently. We would sit down and debrief with each other and go 'how can we be different tomorrow?'* (student, FG2).

Students perceived that the presence of a peer enabled a **safe learning environment**. Students could question and debrief with their peer without fear of this impacting on their summative assessment, in contrast to discussions with a clinical educator. This was reported to have occurred informally in both the PAL and traditional models.

> *Even just asking silly questions you don't want to ask your supervisor because you think you might get marked down. It holds you back from asking some questions* (student, FG1).

Clinical educators perceived that their **burden was reduced** when students in either the PAL or traditional model provided this level of support to one another, instead of always turning to the educator.

Table 1
The peer-assisted learning model.[17]

Domain	Feedback				Clinical reasoning	Risk identification
Tool	Peer feedback book	Educator feedback book	Peer observation form	Verbal feedback triad	SNAPPS [18]	Complexity-Risk Matrix [19]
Structure	Unstructured	Unstructured	Structured	Unstructured	Structured	Structured
Minimum frequency	2/student/wk	2/student/wk	2/student/wk	1/pair/wk	3/pair/wk	2/pair/placement

Table 2
Characteristics of clinical educators and students.

Characteristic	Educators (n = 12)	Students (n = 22)
Gender, n female (%)	10 (83)	12 (55)
Age *(yr)*, n (%)		
18 to 20	0 (0)	15 (68)
20 to 25	2 (17)	7 (32)
25 to 30	8 (67)	0 (0)
> 30	2 (17)	0 (0)
Clinical experience *(yr)*, n (%)		
< 1	0 (0)	
1 to 3	5 (42)	
3 to 5	3 (25)	
5 to 10	3 (25)	
> 10	1 (8)	

It gives the students someone else to go to as well. If you haven't had a lot of experience it takes the pressure off a little bit because they don't necessarily come to you with every single thing (educator, FG4).

Students felt positive about this perceived reduction in reliance on the educator for support. Their comments demonstrated that they were acutely aware of imposing on, or adding strain to, their educators.

It's just being able to bounce things off each other. Our supervisor mentioned that she likes that we could work together, and we felt good about being able to rely on each other (student, FG2).

The **time burden associated with educator driven feedback** was also reduced, as student peers were able to provide feedback to one another. This was enhanced in the prescribed PAL model, as students were scheduled times for this to take place each week, resulting in greater frequency of peer feedback. Educators in both focus groups described being legitimately surprised that student peers would be willing and able to have constructive feedback dialogue with each other.

It could save some time from the [educators] point of view when I am not telling students 'can you make sure the patient is well spoken to' (educator, FG5).

One of the things I observed when I did verbal feedback with PAL-model students was the students I observed were quite forthcoming with constructive feedback. The reason it surprised me [was because] when I was a student I would never say something bad about someone I was in placement with because I thought 'that's going to highlight the negative aspect of my peer's performance to my supervisor'. I was actually quite pleased that that didn't seem to be a barrier to providing constructive criticism (educator, FG4).

Students recognised this additional feedback from different parties as adding to the overall learning experience.

I really appreciated when my peer gave me feedback. It's just a different perspective from the supervisor as well (student, FG3).

Using activities mandated in the prescribed PAL model to **maximise 'downtime'** in the clinical setting was identified as a significant positive for the clinical educators, compared with the traditional model. PAL was perceived to perform a 'double duty' through both adding to the learning experience and aiding the logistics of placement organisation.

They can give each other feedback and work together on problems. I think that is useful rather than sending someone away to do a task and coming back with very little. It's easier when they can bounce ideas off each other. I think they get more out of it and you feel like they've used their half hour of downtime for something productive, as opposed to disappearing to the library on their own and you're not sure what's been done (educator, FG5).

PAL activities used in 'downtime' were seen as helpful in involving additional staff in clinical education.

It worked well with part-time staff. In the past, staff that weren't there from 8 am till 5 pm couldn't supervise students. We have staff that are 8 am till 3 pm and then we could use that extra time to do some PAL activities and discuss it with the senior the next day ... things we couldn't do with the traditional model that we could do now with PAL (educator, FG5).

The prescribed PAL activities were also perceived to maximise the efficiency of the learning experience by helping students to 'get more' out of each patient interaction. The notion that PAL supported structured reflection was raised by educators, and praised by students for helping to generate reflective capacities.

I think it pushed them to reflect more on each individual experience. Because there were so many PAL activities to complete and they picked a different situation for each, they were forced to think about what they were doing and why, what they did well or not so well. Often I think if they didn't have to do those things they would just do it, be done with it and that's kind of it (educator, FG4).

The teamwork and co-operation required of students in the prescribed PAL model was perceived as an authentic representation of skills required as a health professional. Students and educators reported that PAL helped students to **develop skills in collaboration**.

It's reflective of real life. You're always going to be working with people that are less experienced or bring different things to the table. You need to be able to act accordingly; it's part of your professionalism (educator, FG4).

Students perceived that the prescribed PAL model helped them to **develop skills in feedback interactions**, and stated explicitly that the mandated feedback as part of the PAL model had 'spilt' into habits, even when they were not monitored. Again, educators reported that the ability to watch others, and make and communicate judgments on performance was important in the workplace.

We got used to giving each other feedback and now we still do that even though we don't have to ... So I guess sometimes you might think you don't want to tell them, offend them, but because we had to in the beginning now we just keep giving each other feedback (student, FG2).

If you've got a junior staff member and you've asked them to give feedback to a student, they would often argue 'I don't know how to give feedback'. If we're skilling our students to give feedback to each other, I think it's a good skill to have when they are coming to clinical practice (educator, FG4).

Box 1. Summary of subthemes within Theme 1: what peer-assisted learning can do.

- Reduces student anxiety
- Helps to create a safe learning environment for students
- Reduces clinical educator burden
- Maximises use of 'downtime'
- Develops collaborative skills
- Increases feedback capability

Theme 2. What peer-assisted learning cannot replace

In both education models, students described the **importance of observing the clinical educator** in order to establish the performance benchmark. This expert role modelling was considered to be something that could not be provided by peers, and was particularly important not only in improving the students' own performance, but also in providing appropriate feedback to peers.

You want to mimic, to some extent, what your [clinical educator] is doing. To you, that's the standard. If you can do what they do, then you're going to be hopefully a good physio and get good marks. Early on, to know how to go see a patient, the process you do things, and where they put things when they're getting patients up [out of bed]. I think all those things early on through demonstration are so critical (student, FG3).

Despite both educators and students acknowledging the value of peer feedback, both parties placed substantially **higher value on educator feedback** in both models. Some perceived that peer feedback could lack depth, because students lacked clinical expertise. Students also raised the notion that educator feedback is more important because the educator is also the assessor.

It [feedback from the clinical educator] ... was more in depth and ... more relevant. It might have been that I respect the opinion of the [educator]. Not that I don't of my peer, but you respect your [educator] a lot more because they have the experience and really know what they're talking about (student, FG1).

[Students] want to know they're doing well from their [educator] because they're the ones that are going to assess them (educator, FG5).

Both educators and students recognised that clinical education is complex and that learning needs and, therefore, task sequencing change depending on the student, educator and setting. The rigidity of the prescribed PAL model was a source of dissatisfaction; participants perceived the need for flexible PAL activities that responded to changes throughout the placement. The students highlighted the value of the **clinical educator's guidance** in selecting and facilitating incrementally complex PAL activities tailored to the individual student's progress, rather than strictly following scheduled PAL tasks.

Say your peer was seeing the same patient every day and doing similar stuff, giving them feedback every day on the one thing you're doing is just going to be overkill. First time it might be 'try doing this, or try doing this' but then by the fourth or fifth day you're watching them do pretty much the same thing. I think that seemed like a waste of time sitting, watching and not giving much feedback (student, FG1).

The clinical educators reported being challenged by the mandated frequency of tasks in the prescribed PAL model. Many described their plans to use a flexible model in the future.

I think if you had the flexibility to realise when it's not working and to change things. With this [the prescribed PAL model] it got difficult because there wasn't the flexibility to say this is not working (educator, FG1).

I really think some of the tools were beneficial and I would incorporate them into a model that was more flexible without the onus of 'we have to do this' (educator, FG2).

However, the clinical educators identified some positives in having a prescribed structure for clinical education.

I think feedback can ... [be] forgotten ... It [the prescribed PAL model] prompted me to do that and also ... [prompted] the two students to give each other feedback (educator, FG5).

Box 2. Summary of subthemes within Theme 2: what peer-assisted learning cannot replace.

- Observing the practice of the clinical educator
- Individualised feedback from the clinical educator
- Expert guidance
- Hands-on learning experiences

I think, as someone who hasn't done a lot of clinical supervising ... [the prescribed PAL model] gives a lot more structure as to how to supervise students and what to do with students (educator, FG4).

Students described that the value of the activities in the prescribed PAL appeared to diminish towards the end of their clinical placements.

Initially, when we were doing it the first couple of weeks, I found it pretty good just to set out the information, what I wanted to assess with the patients and get my head around what I was going to do ... After a few weeks that benefit wasn't quite as obvious because I was a lot more confident in myself and what I wanted to do (student, FG3).

The clinical educators agreed that in the future they would use PAL activities early in the placement and then progress towards independent practice.

I would choose the PAL model, starting the students together and then [the] second or third week separating them, working together on some patients that need more physical assistance (educator, FG5).

Students and educators **privileged 'hands on' learning experiences** (ie, doing) over the activities mandated in the PAL model (ie, observation, feedback, reflection, planning). This phenomenon of 'doing is better than watching' was framed as an overall philosophy of good clinical education, rather than reflecting the experience of the alternate activities being of less value.

You do learn from observing but I feel like the idea of placement is more to get hands-on experience, so therefore seeing patients the whole time, whether it's by yourself or with the assistance of your peer (student, FG1).

I think in their mind, the idea of a clinical placement is doing it on a real person. It's not just watching, they've done that at university (educator, FG4).

Theme 3. Key variables for peer-assisted learning success: cohesion of the student relationship

The clinical educators and students referred to the success of the PAL strategies being dependent on the **cohesion of the student relationship**. To be successful, it was important for students to proactively initiate PAL activities.

I think it depended on the student ... that's a comment I have in general. It really depends on which student you had. Some students were really good, took a lot of initiative and we didn't have to ask a lot of questions at all. We had others that needed more prompting (educator, FG4).

My partner and [I] were quite different [in] the way we worked, the style of learning. It was hard to co-ordinate that because I would learn a different way to how he would. Working together wasn't so easy (student, FG2).

Despite these reservations, some students described building effective peer relationships in both models, despite interpersonal differences. Educators considered that a student's ability to interact productively with peers was a **marker of overall capability in practice**. Educators perceived that students who were able to get along and complete work, despite personality differences, demonstrated effective behaviours in communication, teamwork, and professionalism.

I was told my students didn't get along all that well outside of the clinical placement, but I didn't see that reflected when I supervised them. If that was the case they were both very professional (educator, FG5).

Box 3. Summary of subthemes within Theme 3: cohesion of the student relationship.

- Can affect the frequency and success of peer-assisted learning
- Is seen as a marker of students' overall capability in practice

I think it [the poor peer relationship] was really reflective of this student because his team work and the way he spoke to other staff was horrible ... The rapport was never as good as it was with me because he knew I was the one marking him (educator, FG4).

Discussion

The results of this study reinforce the view that 2:1 (student:supervisor) placement models can enhance clinical learning experiences for physiotherapy students[9,10] because many benefits were described in both paired placement models. Participants reported that while PAL occurred in the traditional and PAL models, the 'prescribed PAL model' was influential in establishing positive habits that promoted opportunities for learning, such as active observation and peer feedback. Students and educators also reported that the PAL model enhanced the use of 'downtime' that typically frustrated students. Students perceived that the informal PAL, which occurred in both models, reduced anxiety associated with clinical education.

This qualitative analysis explains an outcome of our randomised trial:[16] that some participants would continue with a 'flexible PAL model' despite greater satisfaction with the traditional model. The in-depth analysis of participant experience also provides insights into aspects of PAL that were perceived as favourable. Both educators and students reported benefits of informal PAL and additional benefits of a prescribed PAL model. A flexible model would counter challenges related to the rigidity of the prescribed activities and mandated data collection associated with a formal research project.

Peer support in both the PAL and traditional models reduced dependence on the educator. PAL may help position students as active learners who are less reliant on the 'expert' educator for feedback and direction. Nevertheless, students emphasised the pivotal role that experienced educators play in modelling clinical performance. This direct observation of 'experts' provided a benchmark against which students could evaluate their own performance and the performance of others. Once the benchmark had been established, the efficacy of peer observation and feedback was enhanced. Utilising PAL to develop important skills such as observation and feedback may have a positive effect on students' willingness and ability to teach/supervise when they enter the workplace.

The educators reported that maximising use of 'downtime' was a significant benefit of the PAL model. Creating opportunities for self-directed learning has been identified as important in effective engagement of students in clinical education.[21] Gordon and colleagues[22] urged educators to 'turn downtime into clinical learning time' and 'make maximal use of whatever the environment can offer'. Empowering educators to design targeted PAL activities to replace unstructured 'independent learning' has the potential to improve the efficacy and efficiency of clinical learning.

Students and educators in this study described clinical education elements that cannot be 'replaced' by PAL. One of the perceived dangers of PAL is that the educator will be made redundant and the 'blind will be leading the blind'.[23,24] The data from the present study do not support that educators are sidelined in PAL. Skilled educators remain a key component to placement success by designing effective learning experiences. Earlier studies[11,17,25] have suggested that supervising multiple students requires specific educator skills. Educators successfully facilitating PAL are required to model target performances, set expectations and rationale for how PAL interactions might be useful to extend learning, select and scaffold relevant and appropriate patient-based learning experiences/tasks, guide learners through complex social interactions, model reflective practice and provide individualised feedback.

Both students and educators valued practical or hands-on learning in the clinical environment. Although feedback and reflection are considered to be crucial for learning, both students and educators reported 'learning by doing' or 'seeing patients' as the cornerstone of clinical education. Peer-assisted learning models may help educators to increase feedback and reflection into a culture of 'doing'. Students and educators reported that PAL tasks were more useful early on in placements, which is consistent with the principles of scaffolding learning tasks to enable independent practice. Student preference for PAL earlier in the placement has been previously reported; students tend to want to demonstrate independence as they approach placement completion.[26]

Both students and educators described student 'compatibility' as a key enabler of successful PAL. In the 2:1 model, the student-student relationship has been identified by students as a stronger influence on learning than the educator-student relationship.[26] Students perceived that the educators played a key role in creating an environment where collaboration was encouraged and competition was minimised. In preparing educators to apply PAL models, it may be important to include related content. No evidence was found of peer relationships that were damaging or destructively competitive. This aligns with previous research, where compatibility and competition has frequently been raised as a concern but has rarely been observed.[11]

The present study was conducted in one health service, with one group of students and educators, which limits the generalisability of the findings. However, students and educators experienced at least two different placements within the year across five different sites, each with unique workplace cultures, and no site-specific differences emerged in the data. Educator participants were volunteers and, therefore, a self-selecting group. Issues may have been missed that related specifically to educators who did not volunteer. For example, educators who have a particularly negative view of paired student placements and/or PAL may have chosen not to volunteer for the study.

Conclusion

Students reported that the learning environment created by PAL enabled honest discussion without fear of negative educator assessment. Educators reported that PAL reduced educator burden and that the prescribed PAL model maximised use of downtime and helped students to build professional skills. Both students and educators considered that PAL supports clinical learning, but cannot replace educator modelling, feedback and guidance. Cohesion of the student-student relationship was seen as an enabler of successful PAL. Both students and educators described how PAL enabled active learning and reduced dependence on the educator. Students reported that the prescribed PAL model 'forced them' to actively observe practice and learn to communicate evaluative judgments to peers. The role of the educator is not redundant in PAL, but central in designing flexible and meaningful professional practice experiences. In alignment with the results of our randomised trial,[16] both parties reported resistance to the mandated activities and frequencies in the PAL model. Therefore, a flexible implementation of activities, to be negotiated by student and educator, is recommended.

What is already known on this topic: Peer-assisted learning in physiotherapy clinical education involves students undertaking some paired tasks (eg, observing each other's patient management and giving feedback). This has the potential to maximise the learning opportunities without the direct involvement of the clinical educator. In a recent trial, a traditional model of clinical education was preferred over a model that included mandatory peer-assisted learning tasks.
What this study adds: Students and educators each reported positive aspects of peer-assisted learning (such as reduced educator burden, greater productivity, and fostering of professional skills), although there were aspects of educator-facilitated learning that it could not replace. Flexible use of peer-assisted learning tasks may allow their advantages to be attained.

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