

Editorial

Clinical education of physiotherapy students

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This Editorial introduces *Journal of Physiotherapy's* article collection on clinical education of physiotherapy students. The article collection has been curated from papers published in the journal to facilitate access to important findings in this field, highlight trends in the research and summarise avenues for further investigation. The collected articles show educational models, novel approaches to finding clinical placements, early educational initiatives taken in response to the coronavirus disease 2019 (COVID-19) pandemic, the current status of entry-level physiotherapy assessment, and insights into future directions for physiotherapy education.

Models of clinical education

In 2021, the total number of entry-level physiotherapy programs in the member nations of World Physiotherapy had risen to about 3,800.^{1,2} For example, in Australia and New Zealand the number of universities offering such courses has risen to 27 and programs offering entry-level physiotherapy programs have increased sharply over the past two decades (Figure 1).³ Consequently, physiotherapy student enrolments have also increased, with over 10,000 students enrolled in entry-level courses in Australia at 30 June 2020.⁴ This has increased competition for clinical placements. Many undergraduate physiotherapy programs also face financial pressures; for example, recent changes to higher education funding in Australia have caused a net decrease in funding support of around 9%.⁵ These changes highlight the need for more-efficient models of education and the importance of willingness to embrace organisational change.⁶

Peer-assisted learning

Peer-assisted learning (PAL) in clinical placements involves students working in pairs or larger groups, who undertake structured and/or informal learning activities together (eg, provide social support and peer feedback on performance). Potential benefits of PAL models include those for students (eg, reduce anxiety by creating a safe learning environment and develop collaborative skills), clinical educators (eg, reduce workload as students support each other and can undertake structured learning tasks without direct involvement) and education providers (eg, build clinical placement capacity). A crossover trial by Sevenhuysen et al gave third-year physiotherapy students an opportunity to experience a structured PAL clinical placement and a traditional clinical placement.⁷ The PAL model was new to students and educators so training in the use of the PAL model was provided prior to the 5-week clinical placement. Student performance was similar with the two models. Although the PAL model reduced educator workload and increased student feedback, both educators and students were more satisfied with the traditional model.⁷ Sevenhuysen et al then used focus groups to explore student

and educator perspectives of the PAL model.⁸ The respondents reported 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 authors also concluded that a more flexible use of PAL activities might provide students and educators with more agency, and empowering educators to design worthwhile PAL activities might lead to increased adoption and acceptance of the PAL clinical placement model.

Simulation

Chipchase et al described how some in the profession have successfully embedded the use of simulation into entry-level and post-graduate training and assessment.³ They questioned whether simulation practices could extend further; for example, by using students as simulated patients, by using simulation to a greater extent in post-graduate training and even by using simulation to provide training for other workplace settings (eg, private practice). They concluded with some questions and challenges to all stakeholders (clinicians, educators, researchers and professional bodies) in meeting the future needs of the profession, calling for informal and formal leadership to drive cultural transformation as well as the need to work together in strong, collaborative partnerships in order to educate the next generation of safe and effective practitioners.

Private practice placements

Traditionally, most physiotherapy clinical placements in Australia take place in public hospitals, yet most graduates work in the private sector. A mixed-methods study quantified and characterised the use of private practice for clinical placements in Australia.⁹ Clinical education managers (CEMs) were also interviewed to discern their perceived benefits, risks, barriers and enablers of private practice clinical placements.⁹ With a 95% response rate from eligible Australian universities, the study provides very robust data. Based on 2017 data, 44% of students undertook at least one 5-week placement in private practice and this accounted for 9% of all 5-week placements – an encouraging increase compared with previous reports. Key findings from the CEMs' perspective were that private practice placements were safe and beneficial for students, practices and universities. The main identified risks were related to quality and consistency of student experience with no real risk to clients or service. The main barriers that were highlighted were time costs (to both private practitioners and CEMs), lack of space in some private practices and potential loss of earning as the CEMs recognised that supervising students does take time. The CEMs felt that there was no single superior educational model and that with more time and

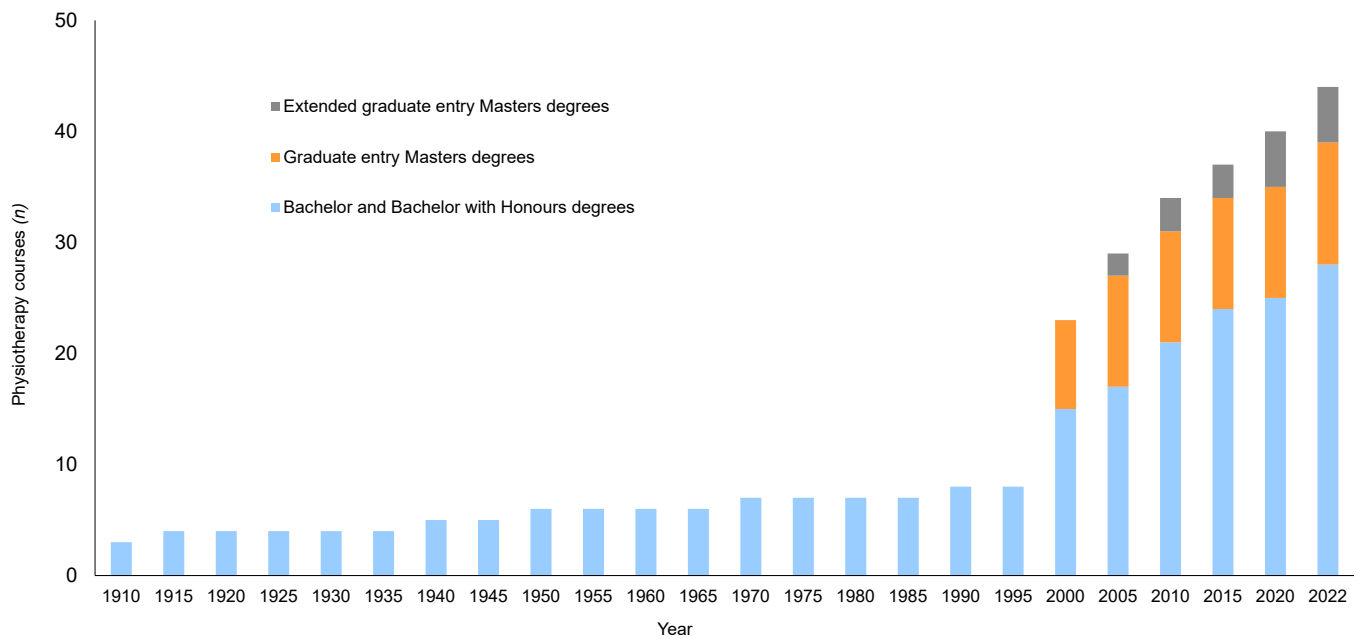


Figure 1. Growth in the number of accredited physiotherapy programs in Australia and New Zealand.^{a,b} Modified from Chipchase et al.³

^a When a university offers both a Bachelor degree and a Bachelor degree with Honours degree, these have been counted as one program because the Honours program is generally nested within the Bachelor degree.

^b Some universities operate programs across different locations and in these cases are counted as multiple programs because they require staffing and resources at multiple sites.

resources there were opportunities for working with private practitioners in partnership to enhance learning experiences and build capacity for clinical placements in the private sector. To facilitate this, the paper lists a range of available training and support resources.⁹

Expansion of clinical placements in private practice raises the question: do students who undertake more private practice placements achieve equivalent performance outcomes as their peers who undertake fewer private practice placements? Lawton et al undertook a large-scale, longitudinal, retrospective study comparing final Assessment of Physiotherapy Practice (APP) results between public and private sector placements of 284 students at one university.¹⁰ Student performance did not substantially differ between the two sectors. Subsequently, the 284 APP results from the final placement in the course were compared with final placement results from 517 students completing a similar course at other universities, which again found no important differences. This support for expanding private practice placements into the private sector should help meet the growing demand for clinical placements and permit better matching of placement exposure to workforce employment destinations.

Non-metropolitan placements

Another way to respond to increasing demands for clinical placements would be to increase placements in non-metropolitan centres. Francis-Cracknell et al¹¹ interviewed first-year students about their perceptions of upcoming non-metropolitan placements, third-year and fourth-year students about their perceptions of completed non-metropolitan placements, and clinical educators from non-metropolitan sites. Roughly half of the first-year students (53%) had an unfavourable perception of non-metropolitan placements, especially those from a metropolitan upbringing. The third-year and fourth-year students and the clinical educators suggested strategies to support and prepare students for non-metropolitan placements: tailoring preparation for students, paired rather than individual placements and near-peer presentations for physiotherapy students prior to undertaking non-metropolitan placements. Other possible facilitators were dedicated clinical coordinator positions, travel subsidies and affordable accommodation. Students who have positive experiences in non-metropolitan clinical placements are more likely to seek employment in these settings.¹² Another advantage of increasing non-metropolitan placements and their acceptability may

help to address the unmet healthcare needs of communities in non-metropolitan areas.¹³

Clinical education in the COVID-19 pandemic

The reduction in face-to-face interactions and changes in healthcare delivery during the pandemic have created many challenges¹⁴ but also provided opportunities for innovation in clinical education.

Clinical research placements

One such example is the advent of the clinical research placement, where clinical education is delivered in the context of research, with students involved in research projects that include delivery of evidence-based care.¹⁵ Dario and Simic¹⁵ described the planning, development and implementation of pilot projects where clinical placements were embedded in research trials: one in knee osteoarthritis and one in low back pain. The model was co-designed by academics and researchers. Telehealth trials were identified as the best option in the pandemic and shared care models were used, with experienced physiotherapists leading the interventions and students supporting and performing some clinical and research-related tasks. The placements were assessed using the APP across the 5-week placement. Following successful trials, these placements are now embedded in the physiotherapy program at the University of Sydney and in partnership with a local health service (clinical activities) and research institute (research activities). Quality assurance processes suggest positive outcomes as well as some barriers. Although this placement addressed an immediate need, it also provides a future opportunity to expand clinical placement capacity and develop research and evidence-based practice skills.

Simulation-based assessment of clinical competence

Pandemic restrictions also challenged assessment of practical skills when determining clinical competence in entry-level physiotherapy education¹⁶ and with overseas-qualified physiotherapists.¹⁷ Tognon et al¹⁷ described the steps taken (eg, environmental scan and analysis of existing mechanisms of remote assessment of clinical competence) and considerations explored (eg, whether assessing one's evaluative judgement of a physical task would be sufficient

without testing the actual performance) by the Australian Physiotherapy Council in determining how assessment of clinical competence could be improved and future-proofed to deal with such disruptions. The authors did not identify any model of remote assessment that might replace the current simulation-based clinical assessment but did provide interesting considerations for the future.

Assessment of Physiotherapy Practice tool

The APP tool was originally developed more than a decade ago.¹⁸ It contains 20 items covering seven domains of physiotherapy practice: professional behaviour, communication, assessment, analysis/planning, intervention, evidence-based practice, and risk management. Each item is scored on a 5-point scale (0 = infrequently/rarely demonstrates performance indicators to 4 = demonstrates most performance indicators to an excellent standard). The tool also has a global rating scale. This article collection features two of the original papers^{19,20} that evaluated the validity and reliability of the APP and a more recent paper²¹ offering an alternative scoring protocol and interpretation. The validity study¹⁹ performed Rasch analysis on data from nine universities to establish construct validity and unidimensionality of the tool. These findings supported the summing of the 20 items to provide an overall score of clinical competence between 0 and 80 (ie, a one-factor model). Furthermore, the tool was able to discriminate four levels of competence using the global rating scale. The APP item scales performed in a consistent way regardless of the characteristics of the student, clinical educator or placement context. The reliability study²⁰ established high inter-rater reliability on 5-week clinical placements. Together, these studies provided confidence for physiotherapy educators to use the APP to assess entry-level competence and the APP has subsequently been adopted by all entry-level physiotherapy programs in Australia and New Zealand. Some universities in at least nine other countries already use the APP or are translating it. The third APP paper²¹ differed from the previous cross-sectional studies^{19,20} by using an archival, longitudinal study design to progress the psychometric evaluation of the APP tool. This paper primarily set out to establish whether clinical performance scores obtained via the APP were best represented by one or two factors. Using factor analyses, the results demonstrated that clinical performance using the APP are best characterised by two factors, representing professional skills (items 1 to 4) and clinical skills (items 5 to 20). Furthermore, these interpretations and item scaling were mostly consistent over time (across four clinical placements) and placement context (cardiorespiratory, neurology, musculoskeletal and miscellaneous). A large scale, multi-site (approximately 20 universities across Australia and New Zealand) replication study is currently underway to determine the robustness of these findings across different sites, geographical locations and supervisor demographics.

Several additional avenues for future research are recommended in the papers in this article collection. Rivers et al²² suggested exploring career satisfaction and non-financial incentives for choosing and maintaining a career in physiotherapy. Peiris et al⁹ recommended examining private practitioners' views on clinical education. Dario

et al¹⁵ recommended integrating clinical education at the inception of research studies. Future research should target emerging areas of physiotherapy practice and workforce development needs such as those detailed in the Australian Physiotherapy Association's recent *A Strong Physiotherapy Workforce for a Healthy Australia* publication,²³ which covers areas such as preventative health, aged care, mental health²⁴ and Aboriginal and Torres Strait Islander health.

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