Editorial

Keep the momentum going: pushing the boundaries of clinical learning and assessment

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The tertiary education sector in Australia and New Zealand has undergone rapid, sometimes unsettling, change in the last 20 years. The sector now faces a complex array of challenges impacted upon by national and international competition, globalisation, digital disruption, the changing expectations of the student body, and the threat of deregulation.\textsuperscript{1,2} However, entry-level physiotherapy education continues to thrive in this constantly evolving environment, and faces challenges 'head on' by providing innovative solutions to some of the stressors, strains and barriers felt by both physiotherapy academics and clinicians.\textsuperscript{3,4} This editorial argues that while this relentless change may often be difficult to adjust to, novel and innovative solutions to the many challenges faced in the provision of physiotherapy education provide breakthroughs that may not be possible if reliant on traditional, sometimes deeply entrenched, ways of thinking and doing things.

In the current higher education environment, physiotherapy remains a highly popular career choice and, as a consequence, the number of entry-level programs provided by Australian and New Zealand universities has continued to rise. In 2005, the Australian Council of Physiotherapy Regulating Authorities (ACOPRA) reported that there were 20 programs in Australia and New Zealand.\textsuperscript{3} Today, 38 programs are offered by 22 Australian and New Zealand universities, which is a 90% increase in 13 years. In addition, five new programs have indicated that they are applying for accreditation, making a total of 43, as shown in Figure 1. The rate of growth in the number of programs has slowed a little since the period between 1995 and 2005, when the number of physiotherapy programs increased from eight to 20, a 150% increase in 10 years.\textsuperscript{5} While growth in the number of programs may be slowing a little, the number of students enrolled in these programs has increased and the types of educational offerings have diversified to differentiate universities in this competitive market.\textsuperscript{5}

Now, there are multiple entry points into physiotherapy including Bachelor, Bachelor with Honours, graduate entry Masters, and extended graduate entry Masters degrees, with some universities offering the same program at a number of different campuses. Growth in the number of programs and student load within each program has always created questions about access to appropriate clinical placements for students.\textsuperscript{6} In 2005, for example, concerns were expressed that the increase in student numbers could mean that some students would be unlikely to have access to a comprehensive program of supervised clinical practice.\textsuperscript{5}

The pressure on clinical practice sites from the growing number of students was, and remains, a significant concern for the profession. However, when systems and people are under pressure, innovation is required rather than resting on one's laurels. One solution that has emerged is simulation-based education, predominately in the form of simulated patients portrayed by professional actors. As physiotherapy academics embraced simulation-based education, the prevailing view was that clinical education would not be removed from curricula, but rather that simulation-based education would supplement and enhance traditional clinical experiences.\textsuperscript{7} To this end, a large multi-centre, nationally funded study was developed by some key physiotherapy academic leaders in partnership with the Australian Physiotherapy Association, the Australian Physiotherapy Council, registration boards, Laerdal Medical Australia, and Health Departments. The research program involved four randomised controlled trials that investigated the effect on students achieving clinical competencies when 1 week of a 4-week traditional clinical placement was replaced with simulation-based education using simulated patients.\textsuperscript{8,9} These landmark publications provided the first tangible, high-quality evidence in physiotherapy that clinical education using simulation could replace 25% of clinical time with real clients without compromising students’ attainment of the professional competencies required to practise.\textsuperscript{8,9} While providing strong empirical evidence, this research program also demonstrated that big strides can be made in the academic and clinical landscape when academic leaders work in partnership with professional bodies.

This seminal work was then followed by a large-scale national project, supported financially by the now obsolete Health Workforce Australia, that rolled out simulation-based learning, using mostly professional actors as patients, into 16 physiotherapy programs in Australia between 2014 and 2015. Approximately 1800 physiotherapy students participated in the project, completing 13 200 days of simulation-based training across three core areas of physiotherapy practice: cardiorespiratory, neurological and musculoskeletal physiotherapy.\textsuperscript{10,11,12} As a consequence, simulation has now become a significant and accepted part of most entry-level physiotherapy curricula in Australia and New Zealand.\textsuperscript{13}

For the first time in the physiotherapy profession’s history, simulation is currently being trialled as an alternative assessment of competence to practise for physiotherapists with overseas qualifications wishing to work in Australia. The Australian Physiotherapy Council, the body responsible for the assessment of overseas-qualified physiotherapists seeking to work in Australia, has designed a scientifically robust trial in conjunction with academics across Australia to determine whether simulation is as valid an evaluation as the final, single-event comprehensive assessment currently conducted on real patients.\textsuperscript{14} In doing so, the Australian Physiotherapy Council has developed a state of the art
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change is not just opposition or inertia, but based on big assumptions and hidden competing commitments woven into the fabric of one’s self and, arguably, the physiotherapy profession. Traditional clinical education with direct face-to-face supervision by a physiotherapist is perceived by many to be the gold standard.30 What is needed, as a profession, is to delve deep into the big assumptions and hidden competing interests that propagate this view before resisting the many new models of clinical learning that may be superior. The profession should again consider questioning whether clinical education should remain a substantial component of entry-level physiotherapy degrees, as Crosbie and colleagues did in 2002.31 Other health professions, such as pharmacy, undertake most of their experiential learning under limited board registration following completion of their university education. It is worth considering whether this could also apply to physiotherapy. Finally, the profession needs not only strong leadership to research new models, but informal leaders who strategically challenge the prevailing wisdom in their workplace to provoke cultural transformation through leadership that is more localised, diffuse and modest, and less visible than traditional forms of leadership, yet no less valuable.32

Following on from the initial work into simulation-based education, the profession needs to directly compare different educational designs in methodologically rigorous, randomised trials in order to determine superior educational approaches. These trials need to include economic analyses because, to date, there has been little documentation of the real costs associated with current clinical education approaches. This will provide evidence about which educational methods support more efficient and cost-effective attainment of competence to practise. The research needs to include comparators for traditional clinical learning, where the perception that one model is superior to another appears to be based on anecdotes and historical precedents, rather than on meaningful and robust data.33 Many educational trials are pre-post design, with limited ability to differentiate the impact of the learning activities on observed changes. Trials also need to be more appropriately designed to minimise potential biases. Finally, as the profession continues to explore different ways of providing and assessing clinical learning, it must be recognised that providing safe and effective physiotherapy graduates is the task of education providers, healthcare agencies and professional bodies, such as the Australian Physiotherapy Council and Australian Physiotherapy Association, working side by side. By working together in strong, respectful partnerships, using multiple forms of leadership, with open and enquiring minds, innovative ways of student learning and service delivery can continue to be explored, researched and subsequently implemented in practice.

Ethics approval: N/A.
Competing interest: Nil.
Source of support: Nil.
Acknowledgements: Nil.
Provenance: Not invited. Peer reviewed.
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