

The Evolution of Clinician-Academics in Paramedicine: Completing the Picture of Professionalism

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Abbreviations:

HDR: higher degree by research
PhD: Doctor of Philosophy

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Abstract

Paramedicine is an evolving and integral component of the health system, though the profession has historically relied on medicine and nursing to drive a research agenda. Now, with a well-established research presence, still lacking is the formalized role of the clinician-academic. In this opinion piece, the authors detail how paramedic clinician-academics can drive the profession forward, contribute to enhanced patient care, systems design, and staff well-being.

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Background

The movement to professionalize paramedicine in Australasia has been considerable over the past two decades, culminating in formalized undergraduate and postgraduate education programs and registration with the Australian Health Practitioner Regulation Agency (AHPRA; Melbourne, Australia) and Kaunihera Manapou (Wellington, New Zealand), the Paramedic Council of New Zealand.¹ Australasian paramedics now sit alongside our registered colleagues from the United Kingdom driving paramedicine forwards as an autonomous profession. Notably, as a profession, paramedics are known to “possess complex knowledge and skills, a broad scope of practice,” and “practice under medical direction or independently, often in unscheduled, unpredictable, or dynamic settings.”² The complex care offered by paramedics is promoted to be evidence-based and indeed, a defining characteristic of any profession includes possessing special knowledge and skills in a widely recognized body of learning derived from research, education, and training.³ Thus, the connection between paramedicine professionalism and paramedicine research cannot be overlooked.

Research supporting the practice of paramedics has historically been conducted by physicians and nurses in the hospital setting, and subsequently, adapted to the out-of-hospital environment. However, during the last 20 years, paramedicine has established a strong international research profile, much of which is led by Australasian universities working in collaboration with jurisdictional ambulance services.⁴ Through on-going professional partnerships, paramedics, ambulance services, and universities have demonstrated that robust and well-performed research can inform improvements in patient outcomes, work processes, systems function, and staff well-being, amongst other areas.

Despite the advancement of paramedic-led research being conducted across numerous settings, what remains lacking in Australasian paramedicine is a formalized pathway which actively supports paramedics to undertake research while concurrently maintaining clinical practice. Most other health professions⁵ and paramedics in the United Kingdom⁶ have established dual clinician-academic positions, yet integration of these essential professional components is not well-established in Australasia. A formalized role where paramedics can divide their time between clinical, research, and education roles is vital for the profession’s continued development.

The State of Play

The most common education pathway for Australasian paramedics is to complete undergraduate coursework consisting of a three-year paramedic-specific Bachelor's degree followed by a one-year supervised graduate program as an employee of a jurisdictional ambulance service. During their undergraduate education, paramedics are exposed to fundamental research principles and undertake small research projects and can undertake an Honors program as a pathway to a higher degree by research (HDR), such as a Master of Philosophy or Doctor of Philosophy (PhD). However, the rudimentary research skills taught at undergraduate level are not sufficient to empower larger scale, impactful research.

Currently, there is little flexibility to undertake part-time roles in most jurisdictional ambulance services due to the operational requirements imposed on these organizations by governments. Additionally, paramedics who wish to undertake formalized HDR studies have limited options. For paramedics who do choose to complete an HDR or work concurrently in academia, they are likely required to compromise their clinical careers, income, leisure, and family time. Although scholarships are available to HDR students, clinical work hours are capped in this situation. Further, once established as a researcher, balancing on-going clinical work with research may be dependent on grant funding to "buy out" clinical time. Alternatively, paramedics may transition into full-time academic roles, limiting opportunities for clinical work.⁷ For many clinicians, the desire to participate in research, an HDR, or post-doctoral work is driven by a sense of passion and purpose, to enhance patient outcomes, staff welfare, system efficiency, and to progress the profession. Paramedics should be supported to pursue these ideals whilst maintaining clinical practice.

Concurrent clinical and academic careers are seen in other health services.^{8,9} Support for clinician-academics in other fields of health care includes a "higher qualification allowance," which provides some financial incentive to engage in research.¹⁰ The Ambulance and Patient Transport Industry Award 2020 includes allowances for paramedics who have undertaken further coursework studies to qualify as intensive care paramedics, however no such allowance nor title exists for paramedics who complete an HDR.¹¹ Furthermore, where paramedics fulfil secondments to universities in a research-based capacity, the awards classifications for "non-operational" and "operational" employees are calculated separately, rather than recognizing the summative value of the dual clinician-academic role with appropriate financial compensation. This lack of integration highlights a failure to recognize the specialist skills and expertise such paramedics bring to paramedicine. Universities, jurisdictional ambulance service, and other health care entities are missing the opportunity to utilize such staff to further enhance patient care, organizational development, and staff well-being.

A Path Forward

The impact of a clinician-academic program extends beyond the value of research itself, and to the ability to implement outcomes. Translation of research into practice is often lengthy and difficult, underlining the importance of the clinician-academic who has a deep understanding of both clinical practice and paramedicine research. Thus, paramedic clinician-academics are well-placed to identify clinical problems, undertake research to evaluate current

practice, develop evidence for change, and educate the current and the next generation of practitioners. Whilst acknowledging the value of multidisciplinary research, it is essential to recognize that the continued professionalization of paramedicine must involve high-quality paramedicine-specific research that is led by paramedics. The unique clinical environment of paramedicine highlights the need for a specialist clinician with an in-depth understanding of this environment, as well as the education and experience to undertake well-designed research projects. A clinician-academic with appropriate research and education can present unique perspectives and bring the pillars of knowledge, ethics, and professional judgement together, the combination being greater than the sum of their individual parts.

In other areas of medicine, clinician-academics undertake important research projects, identifying and understanding unique issues that may occur in the patient care and organizational contexts. Such paramedics are able to use their research training and expertise to develop and implement plans to address patient care matters, which may ultimately lead to safer and more efficient and effective health care. Increased exposure to the broader concepts of academic enquiry during undergraduate paramedic education has encouraged greater enrolment in HDR programs, and workplaces must ensure they are ready to formally support them. The international paramedic doctorate registry "ParamedicPhD.com" lists 256 paramedicine-related doctorates registered as either underway or completed.¹² Additionally, these authors can report that Ambulance Victoria (Victoria, Australia) employs seven paramedics working in clinical roles who also possess a PhD, with at least three others at varying stages of completion. Paramedicine is well-positioned to take the next step in the professionalism journey.

Formalizing the role of the dual paramedic clinician-academic requires both the symbolic recognition via title classification as well as tangible support through workplace support schemes that allow appropriate time for research and clinical duties and appropriate remuneration for acquiring these specialist skills. The formalization of this role will not only align paramedicine with other health professions, but will offer a multitude of other benefits including additional career paths, better health care systems, and employment retention through increased job satisfaction. Furthermore, formalization will assist in identifying and making use of the often-undiscovered skills available to organizations employing paramedics who have sought completion of research projects and/or an HDR. The benefits to the wider community of being treated by paramedics with enhanced access to specialist knowledge and guidelines that have been developed with the paramedic-specific context is also a core benefit of actively advocating for the dual paramedic clinician-academic role.

Conclusion

The role of the paramedic clinician-academic must be formalized to continue to build key pillars of professionalism including education, research, and clinical work. In Australasia, there already exists many paramedics who are appropriately qualified to contribute to a contemporary and sustainable dual clinician-academic model. Formalization will reap benefits for individual paramedics, as well as the broader profession, and ultimately the patients they care for.

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