



## Paramedic instructor perspectives on the quality of clinical and field placements for university educated paramedicine students



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### SUMMARY

*Objective:* To determine the elements of quality clinical and field placements through the eyes of paramedic instructors.

*Design:* Qualitative study.

*Settings:* Two large paramedic services in two countries where the entry to practice qualification for paramedics has been set at the Bachelors degree level.

*Participants:* Fifteen purposively selected paramedic instructors were invited to voluntarily participate. The criterion for inclusion was that they had supervised at least one university paramedicine student on a field placement. Recruitment ceased when saturation was reached.

*Methods:* Face to face semi-structured interviews were conducted with participants who were asked their views and expectations of paramedicine student clinical and field placements. Inductive thematic analysis of the transcripts was completed using Nvivo software.

*Results:* The elements of quality clinical and field placements from the perspective of paramedic instructors were identified. With no agreed clinical and field placement paramedicine standards in the countries studied there is variation in the focus of placements, preferred settings, and expectations. Vocationally trained paramedics favoured paramedic service placements, whilst university educated paramedics see benefits in placements in more diverse settings.

*Conclusions:* Paramedic services and universities need to collaboratively address the variation in paramedicine university student clinical and field placements. Standards need to be developed that address the purpose of placements, expectations of students and instructors, and be scaffolded across the education spectrum from undergraduate student to graduate paramedic to instructor.

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### Introduction

Paramedicine education in the United Kingdom, Australian and New Zealand has been in transition since the mid-1990s as university qualifications have become the main pathway to the paramedicine profession. (Joyce et al., 2009; Williams and Waxman, 2006; Cooper and Contemporary, 2005) Paramedicine workforces in these countries now include the vocationally trained and the university educated, with some paramedics vocationally trained and university educated through conversion programmes. (Council of Ambulance Authorities, 2010; Hou et al., 2013).

Unlike most other health professions, there are few agreed standards in regard to expected hours of clinical or field placement for university educated paramedicine students, where and when these placements should occur, or how to assess quality during these placements. (O'Meara et al., 2014) Clinical placements are educational activities where students experience patient contact in health settings such as hospitals and clinics. Paramedicine field placements are understood to be planned, scheduled, educational time spent in emergency paramedic services that include observation and skill development. (Commission on Accreditation of Allied Health Education Programs, 2005; Brown and Zimitat, 2012).

The question of what ought to be included in standards for paramedicine clinical education have been considered internationally. In 2011 the then British Association of Ambulance Chief Executives defined standards for paramedic student clinical placements in the United Kingdom in terms of time, committing themselves to provide field placements equivalent to half the teaching time of paramedicine programmes. (Health and Care Professionals Council, 2012; Association

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of Ambulance Chief Executives, 2011) In the United States, the 2005 paramedicine programme accreditation standards require students to:

... have access to adequate numbers of patients, proportionally distributed by illness, injury, gender, age, and common problems encountered in the delivery of emergency care appropriate to the level of the Emergency Medical Services Profession(s) for which training is being offered. (Commission on Accreditation of Allied Health Education Programs, 2005).

These U.S. standards require clinical placements in a wide range of hospital departments where students can gain access to different types of patients, whilst proposed changes specify that students and graduates gain exposure, and the assessment and management to specific patients and conditions that would be listed in the standards. Similarly, the 2014 Canadian standards for educational programmes ask programmes to:

... demonstrate that they provide adequate clinical and field placements for all students enrolled. Accredited programs are expected to provide students with a clinical rotation and a field preceptorship that enables them to perform the competencies required for entry to the profession. (Canadian Medical Association, 2014).

In addition, the Canadian programme accreditation standards consider clinical and field placement settings. These standards include a requirement that paramedic instructors (or preceptors) receive training that familiarizes them with the intended learning outcomes and assessment processes that ensures that they are able to fulfil their educational responsibilities. (Canadian Medical Association, 2014).

Throughout the world there are a number of terms used to describe the paramedic instructor. (Williams and Pointon, 2008; Willis et al., 2008; Wilson, 2013) In New Zealand for instance, paramedicine students are matched with a 'mentor', who is an experienced paramedic. In Australia, students attend individual ambulance stations for short periods and are assigned to an experienced paramedic instructor. The term to describe these experienced paramedics may be paramedic instructor, clinical instructor, supervisor, preceptor, mentor or clinical educator. Each term has a different meaning and application. (Furness and Pascal, 2013) In this article, we use the term 'paramedic instructor' to define the qualified paramedic who instructs and supervises a student or graduate during field placements and graduate internships.

Clinical education for paramedicine students can be conducted in many different ways, including placements with paramedic services, in the community, or in hospitals. (Lord et al., 2012; Lucas et al., 2013; Boyle et al., 2007; Boyd, 2012) Across the health sector there is considerable literature describing clinical learning environments and the conditions necessary for quality clinical placements (Darcy Associates Consulting Service, 2009; Siggins Miller Consultants, 2012; Brown et al., 2011), however little of this research has been in paramedic settings. Most studies focus on the disciplines of medicine and nursing in hospitals.

There are a small number of studies that have explored paramedic student field placements from the perspective of the paramedic instructor. (O'Meara et al., 2014) Through this study we aimed to add value to the existing knowledge by asking paramedic instructors about their views and expectations of paramedicine students during field placements and whether more diverse clinical placements are of value. (Canadian Medical Association, 2014).

## Method

This qualitative study (Sandelowski and Leeman, 2012) was conducted during 2013 in two large paramedic services in two countries. Purposively selected paramedic instructors were invited to voluntarily participate. Arrangements were made through their employers for them to participate during paid work time, usually just as their shift

started. The criterion for inclusion was to have supervised at least one university paramedicine student on a field placement. A semi-structured interview question guide was developed that consisted of open questions about the participant's experiences with paramedicine student field placements. This guide was developed by the two experienced paramedic researchers and was designed to elicit stories about experiences of paramedic student supervision and an in-depth understanding of the changes taking place in the profession, through the eyes of expert informant. One of the three investigators (HH), a doctorally qualified social worker who was unknown to the participants, conducted face to face interviews that took 30–60 min; these interviews were audio recorded with the participant's permission and then transcribed. Recruitment ceased when saturation was reached.

The interview transcripts were imported into QSR NVivo-10 before being analysed and coded by one research investigator. Potential themes were identified inductively from the transcripts, and then refined and confirmed by the other research investigators. Our results are reported using the three domains of COREQ checklist for qualitative research. (Tong et al., 2007).

## Ethics

La Trobe University Faculty of Health Sciences Human Research Ethics Committee (HREC) approved the research (FHEC12/182) as well as the Human Research Ethics Committee of Auckland University of Technology (13/286). To minimise any potential issues arising from participating in this research, several measures were implemented. Firstly, a generic email was distributed by the Ambulance service to advertise the project and invite participation. Paramedics who were interested in participating were invited to contact the research investigator (HH) who is outside the field of paramedicine. The research investigator (HH) then explained the project, obtained written consent, arranged and conducted the interview. Paramedics were able to nominate the location and time of the interview, and interviews were transcribed and de-identified before data analysis.

## Results

### Participant Demographics

Face to face interviews were conducted with paramedic instructors in Paramedic Service A (PSA) ( $n = 6$ ) and Paramedic Service B (PSB) ( $n = 9$ ). Of these instructors ( $n = 15$ ), the average age was 40 years, one third were female ( $n = 5$ ) and most ( $n = 13$ ) were based in a metropolitan location. Participants represented a range of experience in paramedicine ranging from three years to 34 years (average = 14 years). In this article, pseudonyms have been used to protect the paramedic services' and the individual participants' identities.

In these settings, there were three main pathways to paramedicine: university education; vocational training through a paramedic service; and vocational training followed by completion of a university degree through one of several university conversion programmes. By chance, participants were equally distributed amongst these three groups. The first group ( $n = 5$ ) comprised paramedics who were university educated either directly from school or from an unrelated workforce, their average experience as a paramedic was five years. The second group ( $n = 5$ ) was made up of paramedics who had joined paramedic services and trained to be a paramedic through a series of internal and external training courses offered by their employer. These participants had worked as a paramedic for an average of 16 years. The third group of participants ( $n = 5$ ) had joined paramedic services, were vocationally trained as paramedics and then completed a university degree programme. These participants had worked as a paramedic for an average of 19 years.

Paramedic instructors agreed that field placements are an essential element of paramedicine student education. Support for clinical

placements in other settings elicited differing points of view. Five themes were identified from the data analysis of the paramedic instructor interviews:

1. the purpose of placements;
2. diverse placement settings;
3. continuity of placements;
4. communication between paramedic services, paramedic instructors, universities and students; and
5. preparation and support of paramedic instructors.

#### *Purpose of Placements*

The paramedic instructors expressed a diversity of views about the purpose of field placements. Those who were vocationally trained tended to have the view that the focus of field placements should be observation of paramedicine in practice, whilst others felt the purpose of placement was for students to be involved and practise their communication and clinical skills. Generally, university educated paramedics understood the purpose of a student field placement differently to vocationally trained paramedics.

All of the instructors considered that their role was to show students the paramedicine work environment so they can see how things work in the practice context. There were differences in expectations about the knowledge and skills that the students should possess prior to field placements. These differences of opinion generally aligned with the participants' own pathways to paramedicine. For example, John (PSA-degree qualified) saw students who had strong clinical skills and theoretical knowledge who needed exposure to the work environment, arguing, "they need to see how things work in reality." On the other hand, Terry (PSA-vocationally trained) thought it worked better when paramedics were vocationally trained and placements were "just there to consolidate what they've learned in the classroom", adding "what we have to do now is teach them everything, I mean everything. Whilst they might have some ideas about what to do they don't know how to do it." This was a sentiment shared with some other vocationally trained paramedics, including those who engaged in conversation during tea room conversations; one paramedic commented, "it needs to go back to the old ways when people were trained properly. These young kids have got no idea and people can and do get hurt".

Whilst there are a range of different views about the purpose of field placements and the relative value of the different education and training models, it is clear that these differences of opinion can lead to confusion between paramedicine students and paramedic instructors.

#### *Diverse Clinical Placement Settings*

The paramedic instructors were asked their opinion about appropriate settings for student placements. Generally, vocationally trained paramedics thought that placements should be restricted to field placements in paramedic services, whilst university trained paramedics saw the benefits of clinical placements in a range of diverse settings. For example, Eric (PSB) thought:

it might be okay for first years to spend time in another setting for their placement, but second and third year should be on the road in an ambulance environment. The hospital environment gives them some benefits but not the experience that we need pre-hospital. I can't think of any other setting that would be suitable.

Other participants described the value of a variety of hospital settings including emergency department, theatre, midwifery, mental health, critical care, intensive care, and community settings such as aged care, community mental health services, family medicine clinics, and emergency call centres.

The demand for field placements in these paramedic services is expected to increase in response to the growing number of paramedicine

students and as a result universities will continue to look at diverse clinical placement settings in order to ensure that they meet the needs of students and programme accreditation requirements (Council of Ambulance Authorities, 2010). Whilst there are good educational reasons to pursue this strategy, support is required to help paramedicine students translate the knowledge and skills from these clinical placement experiences to paramedic practice.

#### *Continuity of Placements*

Paramedic instructors were asked their view of the duration of field placements and they consistently responded that short placements are logistically difficult to manage and provide limited learning opportunities for students. It is important to note that there are structural differences between paramedicine field placements in the two participating paramedic services. In PSB, students are assigned to a mentor for a semester and participate in all shifts (including night shifts) with their mentor, whilst in PSA, most placements were of short duration (as little as one or two days). The PSA paramedic instructors argued that these short placements were lost opportunities to engage with students in their clinical education. One participant (Terry – PSA) explained that he sees a lot of students on the weekends.

One day they in are my station, then they travel overnight and sleep in the car on their way to another town 400 kilometres away.

The PSA paramedic instructors made the point that learning opportunities can be enhanced when students have the time to become familiar with the environment and to settle their nerves. They argued that only then can students communicate more comfortably and confidently, show initiative, with the engagement and dynamics of the interactions between student and instructor becoming much more conducive to learning. They recommended that continuity is an essential element of a quality field placement and students should be assigned to a station for at least one week. Paramedic instructors in PSB were generally satisfied with the more extended lengths of time that students were assigned to a specific mentor during their field placements.

#### *Communication*

One issue raised by most participants was the communication pathways between paramedic services, paramedic instructors, universities and students. They spoke about the importance of knowing in advance that there would be a student on their shift. For example, one participant reported returning to work from two weeks leave and finding that she had been allocated a student for her first shift back. There had been no notification of this before she arrived for work. Other paramedic instructors described wanting time at the end of their shift to talk with students and debrief any critical incidents that may have occurred. For example, Terry (PSA) explained:

We need time to provide feedback and do the paperwork. At the moment, the shift finishes and we have 10 minutes to sign the forms, shake hands and we never see them again.

Several of the paramedic instructors did not know who to talk at the universities if there were concerns about a student or how to provide feedback even though all the universities in these regions have formal feedback and assessment processes in place.

#### *Preparation of the Paramedic Instructors*

Paramedic instructors were asked about their own professional transition to working with students on field placements. Some spoke of training programmes that were delivered through their employers that provided information about how to work with students, whilst

others had received no training or preparation before being allocated a student.

They suggested a scaffolded programme of preparation for those supervising students that could start with a short one or two day introduction to the principles of adult learning, facilitating student engagement, and the purpose and expectations of field placements. Following completion of this type of short course, a structured programme such as a post-graduate certificate in clinical education could be offered to those paramedic instructors who are interested in further developing their educational knowledge and skills to improve field placement experiences for themselves and students. Some participants saw this as an opportunity for universities and paramedic services to collaborate in the development and delivery courses that provide appropriate preparation for paramedic instructors.

## Discussion

Previous research has highlighted the expectations of paramedicine students undertaking field placements (Williams and Waxman, 2006; Boyle et al., 2008; Gallagher et al., 2012; Lord et al., 2009; Williams et al., 2009, 2010; Brown and Williams, 2011) and others have identified the generic elements of 'a quality clinical placement'. (Darcy Associates Consulting Service, 2009; Siggins Miller Consultants, 2012) This study is one of the few times that the voice of paramedic instructors has been heard about what they see as the essential elements of clinical and field placements. It has been by deconstructing the paramedic instructors' pathway to paramedicine that we have been able to make sense of the diversity of opinions amongst the study participants.

In PSB, paramedic students all come from the same institution and paramedic instructors understand the structure of the paramedicine programme and the knowledge and skill level of individual students. In PSA, students come from five universities and are reportedly situated at different levels of competence; this was confusing for paramedic instructors as they did not know what students want to do, or expect to achieve as part of their field placements. Since these interviews were conducted, PSA has introduced a standardised clinical placement booklet in collaboration with their local universities that might have addressed these problems.

In general, paramedic instructors who were vocationally trained thought that clinical education should be on the job, within paramedic services; they felt that paramedicine students were there to observe how things happen in practice. This is consistent with the findings from other paramedicine studies. (Willis et al., 2010) Alternatively, university trained paramedic instructors were generally able to see the ways that students' knowledge develops through an integration of theory and practice, along with a recognition of the value of diversity in placement settings and the relevance of working with multi-disciplinary teams. These differences have not been identified in the literature before.

Without agreed standards or a clinical education framework in place, the effect of these differences is that there are confusing and inconsistent expectations placed on students and paramedic instructors. What might be acceptable in one ambulance station with one paramedic instructor might be unacceptable in another location. Paramedic instructors, as well as students, need to know what is expected of them during field placements. Instructors need to have professional development pathways to identify and address learning needs and skill development to support quality clinical education. These issues have been raised before (Joyce et al., 2009; Hou et al., 2013; O'Brien et al., 2013) and no doubt will be raised again until some positive actions are taken to address the issues. (O'Meara et al., 2014; Hickson et al., 2014).

The study participants agreed with the desirability of providing field placements that demonstrated higher levels of continuity than is currently the case in some paramedic services. Continuity can be considered in terms of educational supervision and avoidance of situations where paramedicine students are required to undertake field placements in

widely dispersed locations. Field placement continuity is a key element of educational quality that needs to be addressed in the creation of a clinical placement standards framework for paramedicine.

With high demand for field placements, it is likely that not all paramedicine students will be able to experience sufficient field placements with a paramedic service to meet their learning objectives and the future requirements of course accreditation bodies. In light of these limitations, paramedicine programmes need to maximise the value of the available clinical and field placements through clear placement standards and high levels of collaboration with paramedic services, health and community services, and the paramedicine profession.

Whilst these findings are important to paramedic clinical education, there are significant implications for the broader interprofessional workforce. The increasing demand for extra paramedic clinical placements in health care settings overlaps with demands in nursing and midwifery and the allied health sector for clinical placements, as well as practice supervisors and mentors.

Paramedicine programmes need to help students and paramedic instructors identify and translate knowledge and skills learnt in universities with paramedic service field placements and the resource rich hospital environment and community settings where clinical placements often take place. Just how much time paramedicine students need to spend on field placements with paramedic services or on clinical placements in other settings will remain unresolved until we can collectively provide a clear and consistent position about the expectations of clinical education and develop a clinical placement standards framework.

## Limitations

This article has focused on paramedicine student clinical and field placements in two large paramedic services in two similar countries and was limited to a small number of rural, regional and metropolitan clinical placement settings. Although similar issues have been identified in the clinical placement literature, (Siggins Miller Consultants, 2012) this characteristic might limit the generalizability of the results.

## Conclusion

We explored the elements of quality field placement from the perspective of paramedic instructors. Our main findings are that in the absence of agreed standards there is considerable diversity in the focus of field placement in paramedic services, the value placed on broader clinical placement settings, and the shared expectations of paramedicine students and paramedic instructors.

Paramedic services and universities need to work closely together to address the issues of inconsistency in paramedicine student clinical education. This is essential for the realisation of international portability of qualifications and flexibility of employment. A way forward would be for paramedic services and universities to partner and conduct an audit of the demand for field placements for both paramedicine students and graduates, and engage in conversations about how to manage demand and address questions related to the duration and quality of field and clinical placements for paramedicine students. Ideally, consistent and shared clinical and field placement standards need to be developed that meet the needs of universities, future employers, paramedicine profession and paramedicine students. These standards need to clearly articulate the purpose of clinical and field placements and be scaffolded across the education spectrum from undergraduate paramedicine student to graduate paramedic to instructor.

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## References

- Association of Ambulance Chief Executives, 2011. Taking Healthcare To The Patient 2: a review of 6 years' progress and recommendations for the future (UK).
- Boyd, L., 2012. Strategic directions to enhance clinical placements with in primary health care. *Prim. Health Care Open Access* 2.
- Boyle, M., Williams, B., Burgess, S., 2007. Contemporary simulation education for undergraduate paramedic students. *Emerg. Med. J.* 24, 854–857.
- Boyle, M., Williams, B., Cooper, J., Adams, B., Alford, K., 2008. Ambulance clinical placements – a pilot study of students' experience. *BMC Med. Educ.* 8.
- Brown, T., Williams, B., Lynch, M., 2011. The Australian DREEM: evaluating student perceptions of academic learning environments within eight health science courses. *Int. J. Med. Educ.* 2, 94–101.
- Brown, D., Zimitat, C., 2012. On the road: Medical students' experiences on paramedic placements. *Med. Teach.* 34, e9–e14.
- Brown, T., Williams, B., Lynch, M., 2011. The Australian DREEM: evaluating student perceptions of academic learning environments within eight health science courses. *Int. J. Med. Educ.* 2.
- Canadian Medical Association, 2014. Guidelines for paramedic programs on the use of the Paramedic Association of Canada's (PAC) 2011 National Occupational Competency Profile for paramedics (NOCP) in the Canadian Medical Association (CMA) conjoint accreditation process (Canada).
- Commission on Accreditation of Allied Health Education Programs, 2005. Standards and Guidelines for the Accreditation of Educational Programs in the Emergency Medical Services Professions (USA).
- Cooper, S., Contemporary, U.K., 2005. paramedical training and education. How do we Train? How should we educate? *Emerg Med J.* 22, 375–379.
- Council of Ambulance Authorities, 2010. Guidelines for the Assessment and Accreditation of Entry-level Paramedic Education Programs. Council of Ambulance Authorities Inc., Adelaide.
- Darcy Associates Consulting Service, 2009. Best practice clinical learning environments within health services for undergraduate and early-graduate learners final report. Department of Health, Melbourne.
- Furness, S., Pascal, J., 2013. Mentoring experiences in paramedicine. *Focus Health Prof. Educ. Multidiscip. J.* 15, 30–40.
- Gallagher, P., Carr, L., Wang, S.-H., Fudakowski, Z., 2012. Simple truths from medical students: perspectives on the quality of clinical learning environments. *Med. Teach.* 34, e332–e337.
- Health and Care Professionals Council, 2012. Standards of education and training guidance. Health and Care Professionals Council, London, UK.
- Hickson, H., O'Meara, P., Huggins, C., 2014. Engaging in community conversation: a means to improving the paramedic student clinical placement experience. *Action Res.* 12 (4), 410–425 (Published Online First: 8 August 2014).
- Hou, X.-Y., Rego, J., Service, M., 2013. Review article: paramedic education opportunities and challenges in Australia. *Emerg. Med. Australas.* 25, 114–119.
- Joyce, C.M., Wainer, J., Piterman, L., Wyatt, A., Archer, F., 2009. Trends in the paramedic workforce: a profession in transition. *Aust. Health Rev.* 33, 533–540.
- Lord, B., McCall, L., Wray, N., 2009. Factors affecting the education of pre-employment paramedic students during the clinical practicum. *Journal of Emergency Primary Health Care* 7.
- Lord, B., McCall, L., Wray, N., 2012. Factors affecting the education of pre-employment paramedic students during the clinical practicum. *J. Emerg. Prim. Health Care* 7.
- Lucas, P., McCall, M., Lea, E., Eccleston, C., Crisp, E., Andrews, S., et al., 2013. Clinical placements in residential care facilities part 1: positive experiences. *J. Paramedic Pract.* 5, 406–408.
- O'Meara, P., Hickson, H., Huggins, C., 2014a. Starting the conversation: what are the issues for paramedic student clinical education? *Australas. J. Paramed.* 11 (Article 1).
- O'Brien, K., Moore, A., Dawson, D.A., Hartely, P.R., 2013. An Australian story: paramedic education and practice in transition. *Australas. J. Paramed.* 10 (Article No. 1432).
- O'Meara, P., Williams, B., Dicker, B., Hickson, H., 2014b. Paramedic clinical placement duration and quality variance: an international benchmarking study. Report commissioned for Health Workforce Australia. La Trobe University, Bendigo, Australia.
- Sandelowski, M., Leeman, J., 2012. Writing usable qualitative health research findings. *Qual. Health Res.* 10, 1404–1413.
- Siggins Miller Consultants, 2012. Promotog quality in clinical placements: literature review and national stakeholder consultation. Health Workforce Australia, Adelaide.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* 19, 349–357.
- Williams, B., Pointon, T., 2008. Report on the inaugural meeting of the Australasian Paramedic Academic Network. *Australas. J. Paramed.* 6.
- Williams, B., Waxman, A., 2006. Paramedic pre-employment education and the concerns of our future: what are our expectations? *J. Emerg. Prim. Health Care* 4 (4) Article No. 4.
- Williams, B., Brown, T., Archer, F., 2009. Can DVD simulations provide an effective alternative for paramedic clinical placement education? *Emerg Med J.* 26, 377–381.
- Williams, B., Brown, T., Scholes, J., French, J., Archer, F., 2010. Can interdisciplinary clinical DVD simulations transform clinical fieldwork education for paramedic, occupational therapy, physiotherapy, and nursing students? *J. Allied Health* 39, 3–10.
- Willis, E., Pointon, T., O'Meara, P., 2008. Paramedic education: developing depth through networks and evidence-based research. *Discipline-Based Development Initiatives. Australian Learning & Teaching Council* 978-0-7258-1132-7.
- Willis, E., Williams, B., Brightwell, R., O'Meara, P., Pointon, T., 2010. Road-ready paramedics and the supporting sciences curriculum. *Focus Health Prof. Educ. Multidiscip. J.* 11, 1–13.
- Wilson, A., 2013. Giving feedback to student paramedics in the clinical setting. *Whitiria Nurs. Health J.* 20, 19–23.