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In This Issue

CONCLUSION

The preliminary analysis suggests that reflective practice is being used by paramedics to learn in order to navigate the daily, potentially traumatic, experiences they are presented with, and helps them identify barriers and strategies that enable them to build resilience. There is also some evidence that this reflective practice may be fostering learning that is transformative, changing the lenses through which paramedics view the world. It is hoped that additional interviews and further analysis will link reflective practice to new ways of thinking and positive transformations, as well as strategies to foster critical reflection and transformational learning as a resiliency strategy. cP

ABOUT THE AUTHOR.

David Wolff completed his undergraduate in 2009 and is currently a full-time Master's of Adult Education student at St. Francis Xavier University, Antigonish, NS. An AEC graduate in 1986, David has worked as a Primary Care Paramedic, owned/operated a Patient Transportation Service, and was a Paramedic Program Coordinator. More recent experience includes Paramedic QA Manager, Field Superintendent, Commander of Training, and finally Deputy Chief. David currently serves as a User Experience and Design Specialist, and Educator for Premergency Inc.

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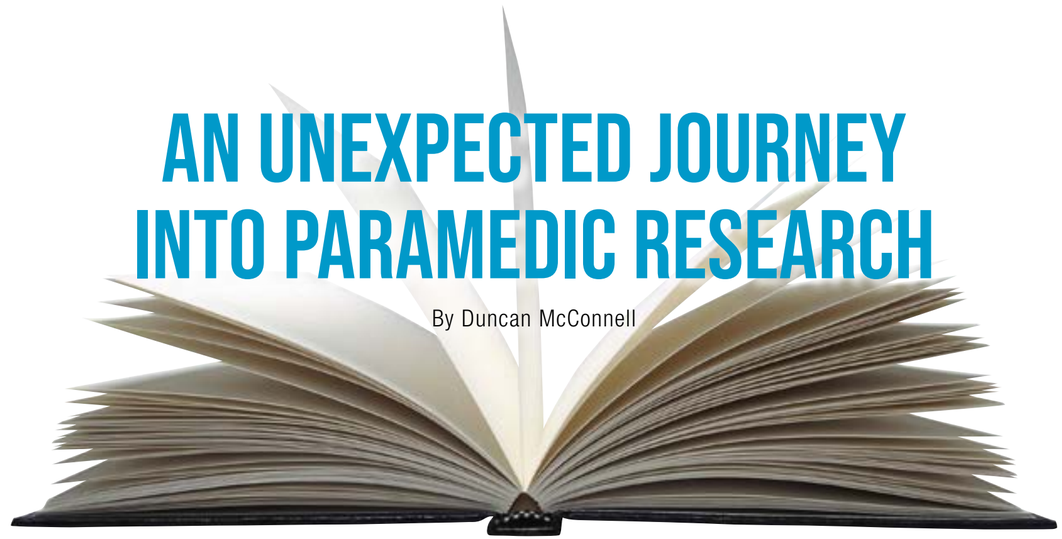
AN UNEXPECTED JOURNEY INTO PARAMEDIC RESEARCH



By Duncan McConnell

If someone had asked me 22 years ago about paramedic research, I think my initial reaction would have included a very blank look on my face, followed by comments along the line of, "What on earth for? We are just ambulance officers that follow guidelines". Fast forward to now, apply a little reflection to what I have seen and what I have done, the younger version of myself could not have possibly imagined the journey I have taken within the paramedicine profession. Over the past 22 years I have witnessed in both Australia and Internationally, as a participant, observer, leader and innovator, the development and change within this profession. When I first qualified, I started off with seven drugs, a cardiac monitor/defibrillator that we took the power cord with us, and a response kit that weighted about five kilograms (11 lbs) – fully stocked. Now I carry around 35 to 52 drugs depending on the location/role I'm working in, a cardiac monitor/defibrillator that no longer requires me to plug it after two shocks and I carry more equipment across multiple bags and hardwired into the different vehicles (air, land and sea) I operate out of than I can list within the word count of this article.

My journey into paramedicine is an unusual one and, in some ways, an accidental one. This journey began in the Australian Army, while I was serving in the infantry. I didn't apply myself as well as I could in high school and as a result, didn't achieve the grades I needed to be accepted as a pilot. So while I worked on increasing my grades for acceptance into aviation training, I accepted a position in the infantry. There was opportunity during this time to work as a combat medic within my unit and as my grandfather had served on ambulances in World War II in the Pacific Theatre and had worked in that capacity, I thought what a nice way to follow in his footsteps. Part of our training required us to train with local ambulance services to increase our exposure to medical related cases, which were completely different to the typical trauma related work we would see deployed. We were also required to become Honorary Ambulance Officers (HAOs), which is how I first became involved with Queensland Ambulance Service (QAS), in Australia. After 12 months I had done enough to increase my candidature as a pilot applicant and was in the process of going through the various pilot screening tests. During this screening process I was also preparing for a significant joint exercise when I had an accident that tore off the lateral, medial and anterior cruciate ligaments from my right knee. The door into pilot training suddenly shut, however the QAS learnt of my injury and offered me employment with them after my recovery. It was a time of significant recruitment and anyone on their volunteer list that wanted a job was sucked up into their fulltime positions, hence my nonplanned, accidental employment into an ambulance service after my injury and the paramedicine journey that is still ongoing.

From here I worked across many areas within the QAS, starting off as a patient transport officer (PTO) driving patients from home to hospital appointments and back home again. During that period of work I began my diploma studies to become a paramedic. Back in the early to mid 1990s, long before many of the students I now teach were even born, all paramedic training like I completed was done internally. I completed my training within the QAS Education Centre, QASEC as it is known today. It

was during this period of education I was first introduced to the concept of research within paramedicine, however it was very narrowly focused within assigned texts and nothing beyond our scope of practice.

My initial years of working as a qualified paramedic took me to some interesting locations. During these early years I was fortunate enough to be part of the evolutionary and upskilling period that we saw take place within Australian Ambulance Services. Some States did it quicker than others and depending on who you ask, they will probably say their State did it the best. For the purpose of this discussion, every State had a massive upgrade in skills over a 10 to 15 year period. It was during this time that I was actually introduced to paramedic research and just what is was doing for the development of our industry. In the early 2000s I shifted my focus towards managerial development and began my educational journey across two Masters degrees in business, which lead to my eventual PhD enrolment in 2018.

What I saw over those 18 years was a level of change, both in Australia and Internationally, to really bring paramedicine to the foreground as an Internationally recognized profession. This was achieved by paramedics who lead the way in early research and supported by physicians, who saw the benefit this would bring to the delivery of patient care within the prehospital space. The number of paramedics who have taken this leap are approximately 50 in Australia, 10 in Canada, five in New Zealand, at least two that we know of in Asian countries and 20-30 in the USA (however many of this are Education based Doctorates, not specific to paramedicine). The reason why these numbers should stand out to you is that the people who completed them sat in the very seat you are sitting in today. They responded to emergencies just like you and in fact, many of those numbers listed still work as paramedics operationally on the road today.

Personally my initialal involvement in research was based on a need I saw within my own service at the time. For me I saw a need for the development of managerial educational reform. We were well on our way with clinical educational reform and up-skilling of paramedics, but managerial development had stalled. Although there was very basic in-house education available, this hadn't been reviewed or updated in over 10 years and was outdated in relation to then current practices. While completing postgraduate studies in management, I came across multiple articles about developing frontline leadership development programs within large organizations. One organization stood out the most, British Petroleum (BP), and the work and research they had done on tackling a similar issue within their organization. These developments about what BP had done served as the building blocks for my research. From there I identified a solution, backed by evidence-based research, supported by executive management, that we were able to pilot within the organization I was working with at the time. After many years of successful integration and building of that initial work and research, a successful addition and expansion to that program took place, forming the classified officer development program they have today.

An opportunity then presented itself to create a bachelor's degree in paramedicine within Griffith University, Queensland, Australia. The development of this bachelor's degree lead to me looking at research within paramedicine in a whole other light. As an experienced paramedic that had worked all over Australia and Internationally, I wanted to incorporate the lessons learned from the Australian Ambulances Service's switching from on the job trained applicants to degree entry applicants, as well as what our international partners have encountered as well. Having led the unit within my organization that looked after overseas and interstate paramedic conversion training, as well as helping develop the first graduate paramedic induction programs there, I had an excellent understanding of the process already in place by that service and the challenges we faced. What I didn't know was what other State Services had experienced and the processes they put in place to manage it. I created a Paramedicine Program Advisory Group that consisted of representatives from State Ambulance Services, National Providers like the Royal Flying Doctors and CareFlight, as well as representatives from the Australian Council of Ambulance Authorities (our regulatory body). I correlated all my data, presented to this group multiple times, along with all my planned and evidence-based approach to developing this new paramedicine degree, took on their feedback and advice, and rolled out a program with its first students in 2016. The result was a program based on the needs of the ambulance services within Australia, as well as the educational requirements and experiences needed for those students who wanted to work internationally after they had finished their degree. What is significant about this research was that paramedics were involved to help shape the direction and development of this bachelor's degree at Griffith University. Paramedics were involved to help shape the next generation of paramedics' educational requirements.

More recently I was fortunate enough to be involved with two international based paramedic development programs, which now directly related to my PhD research. This research work, still in very early stages, focuses on two very different developing countries on the implementation of ambulance services within their health care systems. One already has an established system that requires updating and standardization across the country, while the other has no official ambulance service, requiring a complete ground up development process. The research being done here is very new, with much of what needs to be created for both countries coming from this research. The projects involve personnel from around the world and also includes an aspect of standardization and accreditation of paramedic education internationally. It has gained so much attention it has won funding and support from the Department of Foreign Affairs and Trade (DFAT) in Australia, World Health Organization (WHO) and the Ministries of Health within the countries it is being delivered. More importantly the research itself is being led by current and experienced paramedics to ensure the correct aspects of prehospital care are being delivered and implemented in the correct way. In fact, local medical representatives and senior medical officers have specifically requested paramedics lead this research and development, as we are the professional experts in this field.

Paramedicine research is still in its infancy, especially if we compare it to the work that has already been done over many years in other medical fields such as nursing and medicine. Now when you consider both nursing and medicine has been around for hundreds of years and really the first documented implementation of paramedics really didn't occur until the 1970s, we are on the back foot, especially in depth and research completed in our field. We can't alter the past in this area and we shouldn't try to. Without the work done by those before you, where you are now within this profession would not have happened. But we are a young profession and we have a lot we can offer to the community we serve, to provide a level of care that even 15 years ago didn't exist like it does today. These changes over that period of time were due to paramedics, just like you, that decided to make a change to what we are doing, improve what we can do via evidence-based research and ultimately provide better care to our communities.

I would like to point out that many of the people who came before you and took up that research challenge were ridiculed, told they didn't know what they were doing and that it was all a waste of time. So don't let the doubters cloud your judgement and tell you that you can't do it and it won't make a difference. Anyone who has done or is doing research within the field of paramedicine doesn't do it just for the sake of it. They do it because they are passionate about their profession and even more passionate about the area of research they want to investigate. Sometimes you might build off what others have done before you, or maybe you'll find an area that is yet to be investigated that you feel is vital in the development of this profession. No matter what your reason is or how you find yourself involved in it, participating in paramedicine research will make a difference to the future development of paramedicine.

Paramedicine and paramedicine research needs to be lead by paramedics, which means our leaders, educators and researchers all need to be thought-leading paramedics. These thought-leaders will make a difference in our profession, no matter how small or large it might be. Any of you could become out next thought-leader in the profession, all it takes is an idea. There are more people out there than you realize who will want to help you in this endeavour. The areas I have been fortunate to be involved in would certainly not have been possible without the research that went along with it. I wasn't alone. There were certainly more people out there than I initially realized and if you were to take a similar leap into the giant ocean of opportunities within paramedic research, you will quickly discover people from all over the world willing to offer a helping hand or join you on your journey. I know I did, and I found some of them in the strangest countries I never thought in a million years I would ever visit, let alone help develop ambulance services in.

The only way we will grow as a paramedic profession, is if it is lead by paramedics and paramedic thought-leaders. The more paramedics out there who become thought-leaders in this profession, the bigger and stronger we will become as a profession. cP

ABOUT THE AUTHOR

Duncan has worked within the ambulance sector for 22 years. His experience spans rural, metropolitan, aeromedical, commercial and military operations, as a paramedic, manager and educator. In 2014, Duncan accepted the role of Paramedicine Program Director at the School of Medicine, Griffith University, to develop Griffith Universities new Bachelor of Paramedicine Program. In 2018 Duncan stepped away from his role as the Griffith University Paramedicine Program Director, shifting his focus over to his PhD, which focuses on a comparison of international ambulance modules in developed and developing countries.

Duncan's research interests include paramedic development in developing countries, simulation technologies, low acuity paramedicine and community first contact CPR, to improve out of hospital sudden cardiac arrest. His interest and research towards new simulation methodologies has led to the development of a more immersive and authentic educational environment, from which both student paramedics and qualified paramedics alike, can enhance their learning experiences.

Most recently Duncan has been engaged with the Mongolian Ministry of Health and the World Health Organisation (WHO), in the restructuring and development of emergency medical services and disaster management, within Mongolia. He is also working with the Republic of the Maldives Ministry of Health, in the development of their new National Ambulance Service.

Whilst maintaining his own professional development, Duncan has completed an Executive MBA (RMIT), Master of Commerce (RMIT) When not at work, Duncan likes traveling and camping with his two kids and performing as a professional tribute artist all over Australia.

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