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What is the relationship between professional registration, identity and professionalisation in Australian Paramedics?

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Abstract

This dissertation examines the relationship between identity, professionalism and regulation in Australian paramedics. This project specifically focuses on the period during the transition to national registration of paramedics in Australia. Paramedicine has existed in some form in Australia for almost a century and a half with origin in 19th century military and civil ambulance corps. Major reforms in the latter half of the 20th century led to the advent of "modern" paramedicine and seen the profession grow exponentially in size, scope and complexity. University education for paramedics was introduced in Australia in the mid-1990s. Advanced medical skills considered ground-breaking in the 1970s and 1980s now constitute a basic part of the paramedic's clinical toolkit. Education, research and governance have developed at a significant pace in the last few decades to support this growing profession and its broadening scope and function.

Today's paramedics make complex, evidence-based and nuanced decisions about a range of health and social issues. An increased scope of decision making brings risk to the profession as the traditional "transport to hospital" paradigm of practice yields to a diverse set of complex treatment and referral options. Increasing employment outside of traditional statutory employers meant organisational governance, once the only form of oversight, became less and less suitable for regulating the profession. Also, issues existed with who could claim to be a paramedic as there was no standardised definition, scope or qualification levels. This increasing risk and complexity in paramedicine created a need for greater accountability. Regulation was invariably seen as the logical path for a discipline demonstrating increasing signs of professionalisation and greater levels of autonomy. After 10 years of lobbying, paramedicine was included in the National Registration and Accreditation Scheme for health practitioners in 2018, becoming the 15th profession regulated under this framework.

The move to professional regulation brings major change for Australian paramedics. Previously, the governance relationship existed solely with employers. Now regulation is a partnership between government and the profession. Paramedics have found to be both adverse to and fatigued by change, so this transition was not without challenge.

An initial survey was undertaken in November 2018 during the month prior to the operationalisation of the new regulatory scheme. The pre-registration survey aimed to explore the perceptions of paramedics regarding the introduction of professional regulation. Question topics included knowledge of the scheme, identity formation and support of regulation. Participants were supportive of regulation (59% supported regulation) though 25% saw regulation negatively and 13% remained neutral. While 71% of participants thought paramedics would be more accountable participants believed other significant aspects would not change, including scope (55%) and remuneration (69%). Qualitative data showed that those who welcomed regulation saw it as either a critical scheme for accountability and patient safety or as a mechanism to advance the profession. Detractors saw the introduction of regulation as oppressive and damaging to individual paramedics citing factors such as cost and malicious complaints as risks to paramedics on a personal level. Others considered regulation a complex and unnecessary bureaucratic imposition on the workforce.

A second survey was undertaken in July 2021, 31 months after the introduction of regulation. The post-registration survey covered the same areas as the pre-registration survey allowing comparisons across the two points in time. The post-registration survey also explored the experience of navigating and entering the regulatory scheme. In this survey 67% of participants supported regulation, 21% indicated they were unsupportive and 11% neutral. Those perceiving paramedics had become more accountable increased to 78% as did those feeling patients were safer (51%). Most participants felt scope of practice would increase (57%) as would employment opportunities (61%). In qualitative data, most supporters of regulation continued to cite increased accountability and safety as key elements. Those indicating opposition to

regulation cited imposition on workers and shared anecdotes of oppression as negative impacts of regulation.

Regulation is an important construct to support a profession growing in its power, scope and autonomy. The introduction of regulation for Australian paramedics was accompanied by a range of opinions on the scheme. Over time, views seemed to become more nuanced as paramedics navigated the regulatory experience. There is still significant work to do to ensure practitioners fully engage with and understand regulation. Future research will be critical to tracking the experience of regulation and the impact of regulation on the profession.

Acknowledgments

I would first like to thank my supervisors, Prof. Ian Wilson, Prof. Peter O'Meara, Dr Leanne Cowin and Dr Christine Metusela. From our first meeting, when they convinced me to study something other than what I had proposed, to the last meeting over six years later, when they assured me the thesis was complete, their advice has proven to be both wise and salient.

I would like to acknowledge my many academic colleagues in the research of the humanities of paramedicine, notably Assoc. Prof. Elizabeth Donnelly, Dr. Ruth Townsend and Assoc. Prof. Louise Reynolds. Their guidance has been invaluable, especially in an area of paramedicine research which is only newly being explored.

I would like to thank my colleagues at the Western Sydney Paramedicine Program, Assoc, Prof. Paul Simpson, Dr Navin Naidoo, Assoc, Prof. Liz Thyer, Dr. Robin Pap and Rachael Vella for their ongoing support in juggling teaching and PhD commitments.

Paramedicine research is a supportive and nurturing community. Along the way many other researchers, both early-career and experienced have offered support, advice, distracting memes and unconditional encouragement. I thank the many from paramedic services, regulators, academia and the paramedicine profession in general who have invited and endured my many presentations on regulation and sociology with interest, or at least stifled a look as though they were watching paint dry.

I would like to thank the hundreds of paramedics in both Australia and Canada who gave their time to participate in my studies as an investment in helping us gain a better understanding of our profession.

Finally, I would like to acknowledge my family, especially my wife Krista, who is as patient as a spouse as she is talented at APA 7th referencing. Her support has been invaluable to reaching the end of this journey.

Note: This thesis used editing services by Dr. Warren Rich in accordance with the Australian Standards for Editing Practice. Editing work included checking of in-text references, checking for reliability and checking for grammar and syntax issues under Standards D and E.

Certification

I, Buchanan Christopher Reed, declare that this thesis submitted in fulfilment of the requirements for the conferral of the degree Doctor of Philosophy, from the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

_____

Buchanan Christopher Reed
11 April 2023

List of Names or Abbreviations

Abbreviations

ACP	Australasian College of Paramedicine
ACT	Australian Capital Territory (Australian Territory)
Ahpra	Australian Health Practitioner Registration Agency
CHC	COAG Health Council
COAG	Council of Australian Governments
CPD	Continuing Professional Development
EMS	Emergency Medical Services
HCPC	Health and Care Professions Council (UK)
HMM	Health Ministers Meeting
HPCA	Health Professionals Council Agency (NSW)
IPA	Interpretive Phenomenological Analysis
NRAS	National Registration and Accreditation Scheme
NSW	New South Wales (Australian State)
NT	Northern Territory (Australian Territory)
NZ	New Zealand
PBA	Paramedic Board of Australia
QLD	Queensland (Australian State)
SA	South Australia (Australian State)
TAS	Tasmania (Australian State)
UK	United Kingdom
US	United States
VIC	Victoria (Australian State)
WA	Western Australia (Australian State)

Terms

Co-regulation	The mechanism by which both federal (i.e., the Paramedicine Board) and a state agency (e.g., The Paramedicine Council of NSW/HPCA) regulate health professionals in a particular jurisdiction. Co-regulation is also sometimes used to describe the relationship between the self-regulatory Paramedicine Board of Australia and the Australian Government agency the Australian Health Practitioners Regulation Agency (Moritz, 2019).
Currency of Practice	The ability of a practitioner to maintain a level of knowledge and skill at a level equivalent to the level of the base standard for the profession through ongoing engagement with the profession at an acceptable level (Knox & Batt, 2018).
Emergency Medical Services	Emergency Medical Services is a common term used in some jurisdictions (Notably in North America) to describe the provision of paramedic services, especially in an emergency response setting (Makrides et al., 2020).
Grandparenting	The process of determining whether an applicant meets the entry standards for a profession based on a set of qualifications and experience which do not meet the current standards but were historically appropriate or accepted at the time at which the applicant began practicing (Moritz, 2019).
North America	North America is used to refer to the United States and Canada collectively (normally when a situation or phenomena applies to both countries). When referring to the individual jurisdictions the name of the country will be used.
Organisational Regulation	Control of an occupation or profession through the implementation of policy and rules by an employer (Eburn & Bendall, 2010).
Paramedic	Paramedic is a health practitioner who is engaged in the practice of paramedicine (International Paramedic, 2011).

Paramedicine	Paramedicine is a domain of practice and a health profession that specialises across a range of settings including, but not limited to, emergency and primary care. Paramedics work in a variety of clinical settings, such as emergency medical services, ambulance services, hospitals and clinics, as well as non-clinical roles, such as education, leadership, public health and research. Paramedics possess complex knowledge and skills, a broad scope of practice and are an essential part of the healthcare system. Depending on location, paramedics may practice under medical direction or independently, often in unscheduled, unpredictable and/or dynamic settings (Williams et al., 2021).
Participation Day	The day the regulation of a health profession becomes operationalised under the NRAS (Moritz, 2019).
Professional Body	An organisation whose role is to support and promote a profession. This term is largely synonymous with "professional association". These organisations are not industrial organisations concerned with industrial relations matters (Freidson, 2001).
Professionalisation	Professionalisation is the movement of an occupation across a continuum where individuals increase their control over their work, gain autonomy and increasingly gain the sanction of the community to do that work (Freidson, 1994).
Self-Regulation	A regulatory framework where a profession, through colleges or other regulators, providers regulation and governance to the members of that profession (Irvine, 2016).
Social Contract	Described by Rousseau and Locke, in the context of this research, it is the relationship between a profession and the community which it serves, which sets out the expectations of both and underpins the sanction granted to the profession by the community to hold status and function (Reed, 2022).
Statutory Ambulance Service	An ambulance service constituted under, or contracted by, a state or territory government in Australia to provide emergency ambulance services for that state or territory. The authority to provide an emergency ambulance service is established by statute. (Eburn & Bendall, 2010)

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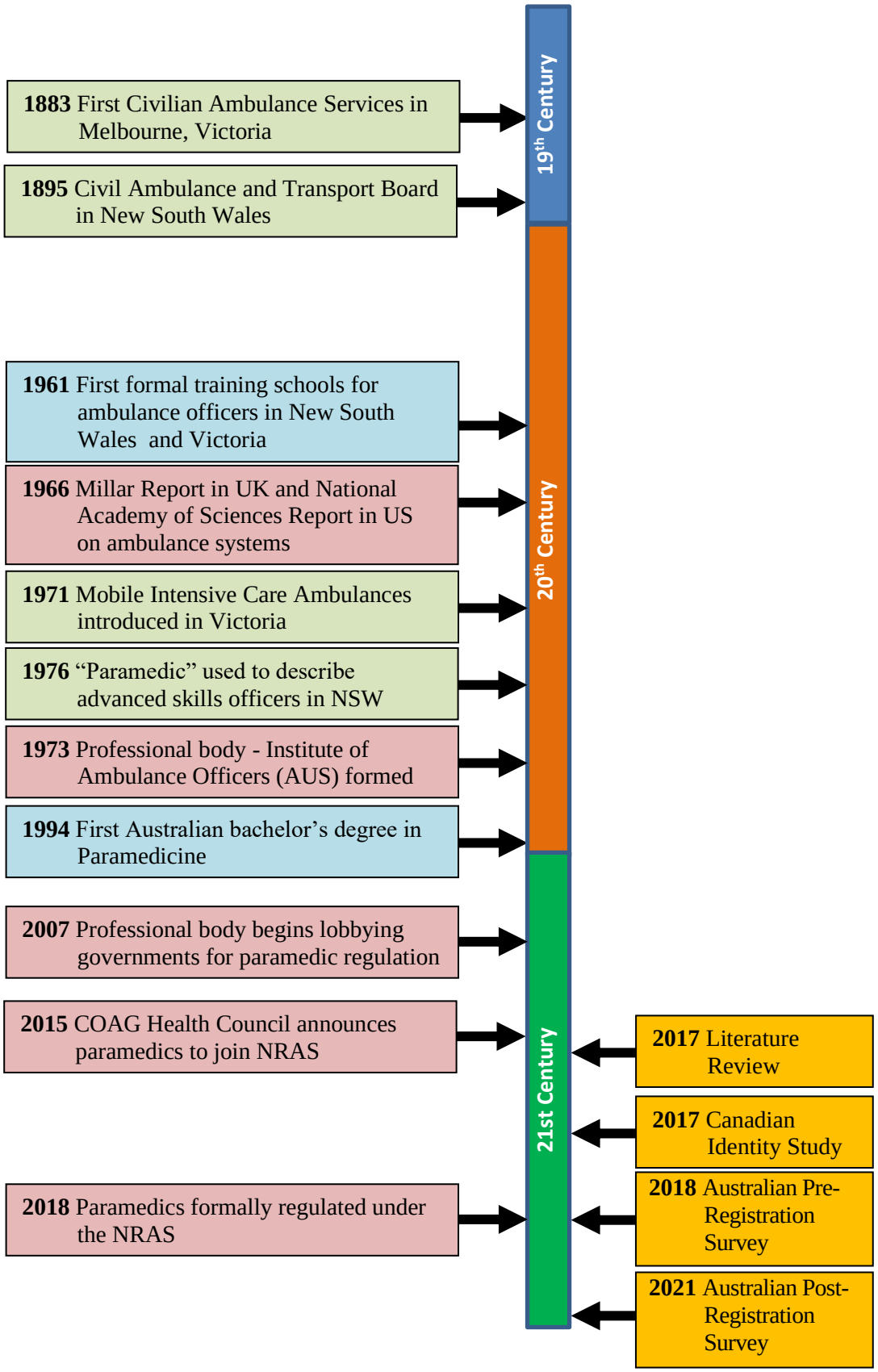
Timeline


19th Century
20th Century
21st Century
1883 First Civilian Ambulance Services in Melbourne, Victoria
1895 Civil Ambulance and Transport Board in New South Wales
1961 First formal training schools for ambulance officers in New South Wales and Victoria
1966 Millar Report in UK and National Academy of Sciences Report in US on ambulance systems
1971 Mobile Intensive Care Ambulances introduced in Victoria
1976 "Paramedic" used to describe advanced skills officers in NSW
1973 Professional body - Institute of Ambulance Officers (AUS) formed
1994 First Australian bachelor's degree in Paramedicine
2007 Professional body begins lobbying governments for paramedic regulation
2015 COAG Health Council announces paramedics to join NRAS
2018 Paramedics formally regulated under the NRAS
2017 Literature Review
2017 Canadian Identity Study
2018 Australian Pre-Registration Survey
2021 Australian Post-Registration Survey

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Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). An Exploration of Perceptions and Experiences of Australian Paramedics following the Introduction of Professional Regulation. *International Journal of Health Governance* (In Press)

Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). Perceptions of Australian Paramedics following the Introduction of Professional Regulation: A Qualitative Exploration (Under Review)

Note on publications:

Publications are presented as published, however some adjustments such as conversion to APA 7th referencing or reassignment of table and figure numbers have been made to incorporate them seamlessly as a chapter in the thesis.

Statement of Contributions of Others

This statement verifies that the greater part of the work in the above-named publications/manuscripts are attributed to the candidate. Buchanan Christopher Reed, under the guidance and supervision of his supervisors, took primary responsibility for the design of each study, data collection and analysis, prepared the first draft of each manuscript, and preparation of the papers for submission to relevant journals. Co-authors contributed to the thesis by providing guidance on the design and structure of each study, data analysis and editorial suggestions for each publication. Below is a list of the publications constituting this thesis, with the proportion of contribution by each author:

Publication	**Contributions**
Reed, B. (2019). Professions and Professionalism. In D. Moritz (Ed.), *Paramedic law and regulation in Australia* (1st ed., pp. 107-126). Thomson Reuters (Professional) Australia.	BR – 94% PO – 2% LC – 2% IW – 2%
Reed, B., Cowin, L., O'Meara, P., & Wilson, I. (2019). Professionalism and professionalisation in the discipline of paramedicine. *Australasian Journal of Paramedicine*, *16*. https://doi.org/10.33151/ajp.16.715	BR – 80% PO – 5% LC – 5% IW – 10%
Reed, B., Cowin, L., O'Meara, P., & Wilson, I. (2021). Perceptions and knowledge of self-regulation of paramedics in Australia. *Australasian Journal of Paramedicine*, *18*; https://doi.org/10.33151/ajp.18.963	BR – 80% PO – 5% LC – 5% IW – 10%

Reed, B., Cowin, L., O'Meara, P., & Wilson, I. (2022). A qualitative exploration of the perceptions of professional registration by Australian paramedics during the transition into professional regulation. *Medical Law International*, *22*(4), 327-348; https://doi.org/10.1177/09685332221117995	BR – 80% PO – 5% LC – 5% IW – 10%
Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). An Exploration of Perceptions and Experiences of Australian Paramedics following the Introduction of Professional Regulation (Under Review)	BR – 80% PO – 5% LC – 5% CM – 5% IW – 5%
Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). Perceptions of Australian Paramedics following the Introduction of Professional Regulation: A Qualitative Exploration (Under Review)	BR – 75% PO – 5% LC – 5% CM – 10% IW – 5%

BR = Buchanan Reed
PO = Peter O'Meara
LC = Leanne Cowin
CM = Christine Metusela
IW = Ian Wilson

SECTION I

PARAMEDICINE: A RAPIDLY EVOLVING PROFESSION

"Every profession bears the responsibility to understand the circumstances that enable its existence."

Robert Gutman

Chapter 1: Introduction

In 1960, one could join any statutory ambulance service in Australia (or one of their predecessors) and practice as an ambulance officer with nothing more than a St John Ambulance first aid certificate and a driver's licence. "Ambulance men," as they were at the time, provided a critical service to the population, conveying the sick and injured to hospital with minimal equipment and negligible training. This was the case across the English-speaking world where barely a handful of jurisdictions in the United States (US) had even mandated advanced first aid courses for ambulance responders at this time (Shah, 2006).

This situation had existed for the better part of a century. However, through the middle of the 20th century expectations began to increase for the capacity of government to provide effective unscheduled and emergency care to the public outside of the hospital system. This was combined with the realisation that early intervention of medical assistance outside of the hospital system had significant positive impacts on patient outcomes (Shah, 2006;Fellows & Harris, 2019). With changes in the role and scope of the traditional "ambulance men," a new term was required to describe something greater than the conveyor of humans to hospitals. Unlike the occupational title "physician", which had existed since the 13th century (Skinner, 1961), "paramedic" was a new term which began to emerge as a descriptor for this profession. This term was entering use in the handful of pilot programs utilising advanced practitioners in ambulances in North America following reports on cardiac health and accidental death in 1961 and 1966 respectively (Makrides et al., 2022; Shah, 2006). The term was also applied to ambulance officers in the UK with enhanced skills and training following the 1966 Millar Report (Fellows & Harris, 2019). Meanwhile, the Mobile Intensive Care Ambulance program was launched in 1971 in the state of Victoria as the first Australian model of an advanced

practicing ambulance officer (Makrides et al., 2022). Throughout this time, the term "paramedic" was still establishing itself as nomenclature to describe these new emergency care providers who were undertaking clinical procedures and decision making formerly in the exclusive domain of medical doctors (Bauer, 1967). In fact, at the outset, the term "paramedic" was only one contender in a slew of possible descriptors. Early advanced ambulance clinicians were variously referred to as "Cardiac Technicians," "Cardiac Recue Technicians," "Advanced EMTs" and many other terms. Over this initial decade of innovation and development, "paramedic" emerged as the nomenclature of choice. The use of the term was further bolstered by standardisation through various training courses including the 1975 National EMT-Paramedic Training Curriculum in the US (and similar curricula in Australia) as well as increasing exposure in the media, not least of which was the US television show "Emergency!" which ran from 1972 to 1977 (Page, 1979).

Now only 55 years from the initial attempts to bring levels of care previously found only in hospitals to those experiencing health emergencies in the community, paramedics are an established profession, trained in Australia and New Zealand, as well as many other parts of the world, with university degrees (Bell et al., 2021; Hou et al., 2013). Dozens of paramedics now hold PhDs and participate in academic research (Olaussen et al., 2021). Paramedics are part of the cultural zeitgeist with fictional and reality television shows following the exploits of paramedics in their efforts to bring care to those in the community with unforeseen health needs.

This accelerated evolution of paramedicine has created a range of challenges for the profession. The pace of change has been significant, not only in terms of clinical scope and training but also in terms of culture and workforce composition. The first women were only being employed by Australian ambulance services at the close of the 1970s, yet the current Australian paramedic workforce is 48.4% female (Paramedicine Board of Australia, 2022). There is also increasing ethnic diversity in many jurisdictions, such as Australia and New Zealand, although this growth is noted to be slower in other western countries (Crowe et al., 2020; Farquharson et al., 2017).

The workload of paramedics has also changed both in terms of its nature and abundance (Andrew et al., 2020; Lowthian et al., 2011). Paramedics now attend a far wider range of patients needing increasingly complex clinical, social and psychological care. This requires paramedics to make more complex and nuanced decisions which have a higher level of risk (Perona et al., 2019). These decisions are increasingly interdisciplinary, require engagement with other health professionals and more frequently include elements such as health promotion, health education and care planning (Makrides et al., 2021).

The increased independence of paramedicine requires revision of the social contract between paramedics and the community (Reed, 2022). The original model of the operation of ambulances, in place from the 1880s to the 1960s and prior to that in military ambulance models of the 19th century, focused entirely on conveyance of the sick and injured to doctors for definitive care. Ambulance services and ambulance officers, as was the terminology in Australia prior to the widespread use of "paramedic", were seen as an important conduit to medical care, but not necessarily health care providers themselves. The social contract was simple: ambulances come and collect the sick and injured and take them to a place where doctors will heal them. However, from the 1970s and moving into the 21st century, it became apparent that paramedics were health professionals in their own right. Paramedics were a disruptive force in healthcare whose potential had been previously unrealised (Newton et al., 2020).

Paramedicine had begun to transition into being a distinct health discipline, with its own patients, its own body of knowledge and its own independent relationship with the community. Likewise, paramedics began to practice in a wider range of environments, including major events, industrial settings, such as mines and train stations, and primary care practices (Acker et al., 2014; Long & Lord, 2021; Newton et al., 2020). Developments including extended care practice, community paramedicine and secondary triage practitioners meant new roles developed within paramedicine where paramedics have unique new relationships with patients and communities (Makrides et al., 2021; McCann et al., 2013).

In this context, the social contract between paramedics and the community changed, creating a relationship between practitioners and patients where paramedics made independent decisions and recommendations about a patient's healthcare. Additionally, these decisions were increasingly based on the knowledge and analysis of the practitioners, supported by evidence-based guidelines and practice, rather than prescriptive, algorithmic protocols created and authorized by other health professions. In this sense, by accepting more responsibility for patient care, and playing a more active role in creating person-centred outcomes, paramedics accepted a more independent role in patient care and more responsibility for their actions, omissions and decisions.

Regulation of a health profession is seen as one of the key elements in this shifting social contract (Cruess, 2006). Professional regulation provides the community with a clear voice in their social contract with a health profession and provides a way of moderating this contract to ensure the profession, and members of the profession, honour their part of this social contract (Reed, 2019, 2022). This mechanism is critical to ensuring that paramedicine recognises the sanction of the community to perform these roles and does so in a way which continues to focus on the needs of the community and its members.

Regulation comes in many forms. These include title protection, licensing and self-regulation (Irvine, 2016). Self-regulation is predicated on the direct involvement of the profession in regulation. A self-regulated profession determines the role of itself and its membership in the social contract and sets codes, standards and practices that support the responsible conduct of profession members in support of the social contract (Moritz, 2019; O'Meara et al., 2018).

In addition to the public safety functions of regulation, there are other impacts. A key tenant of self-regulation is that professions themselves determine the entry of new practitioners. This impacts directly on professional identity, and especially so with regards to paramedicine. In the Australian context, for the first 20 to 30 years of the use of the term paramedic, those using the

term were exclusively employed by statutory ambulance services and identification with the title was tied to employment status. In the 1990s, paramedics' employers outside statutory services emerged largely from the industrial sector (Eburn & Bendall, 2010). With the Australian mining and resources boom of the 2000s, paramedics were working in other employment environments at an increasing rate (Acker et al., 2014).

Within the legal constructs prior to national regulation; aside from a few states who adopted title protection legislation shortly before paramedics entered the National Registration and Accreditation Scheme (NRAS), there was no structure to formally identify people as paramedics. Employment was the only basis on which someone could form an occupational identity as a paramedic. Unfortunately, this situation created two significant issues. First, those who claimed the title of paramedic were not beholden to any specific set of standards other than those of their employer. Standards of employers varied widely, so there was no uniform definition of a paramedic nor common baseline or practice expectations. Second, the title was linked to employment, and thus the "doing" of paramedic "work". Those who retired, were on long term leave (e.g., due to a workplace injury, or who moved between employers) effectively stopped being a paramedic when they were not employed and actively engaged in paramedic work. This extended to casual staff, who were only legally considered paramedics during each shift once they signed on and had no standing as a paramedic between work shifts. Unsurprisingly, this resulted in an existential quandary for those who had either spent a career doing paramedic work and now stopped or those who found themselves in an occupational limbo for a range of reasons.

By the time paramedics entered the NRAS for Health Professionals, up to a quarter of the paramedic workforce was engaged in employment outside statutory ambulance services (National Rural Health Alliance, 2019). This highlighted the issue surrounding entry to the profession and determining who was a "paramedic." The lack of standardisation also made it difficult to effectively discharge the social contract between paramedics and the community. This was due, in

part, because it was difficult to define who was included as a "paramedic" (and were therefore included as parties in the social contract) and there were few mechanisms for paramedics as an occupational group to collectively establish and maintain their part of the social contract (Reed 2022).

Regulating Paramedics

Including paramedics in a regulatory framework sought to address a range of issues. As the autonomy of the profession grew, the argument was increasingly made to either regulate paramedics at a state and territory level, or after the NRAS was established in 2010, to include them in the new national regulatory framework (Eburn & Bendall, 2010; First et al., 2012; FitzGerald & Bange, 2007; Moritz, 2018, 2019; Western Australian Department of Health & Victorian Department of Health, 2015). It took over a decade of lobbying until the COAG Health Minister's Council (Now the Health Minister's Meeting) determined that paramedics should be introduced into the NRAS. The decision was announced by the Council on October 7, 2016, with a two-year implementation time frame (COAG Health Council, 2016).

A range of factors led to this decision. First, paramedics were found to have a significant risk profile. This was not due to poor practice by clinicians but rather the nature of paramedics' practice that required working with limited information, in unpredictable environments, and performing a range of clinical procedures in sub-optimal conditions compared with clinicians who worked in premises such as hospitals and clinics. Equally, paramedics work with a wide range of vulnerable patients including patients with mental and physical disabilities, children, the elderly, and those from diverse cultural, social, educational and economic backgrounds (Western Australian Department of Health & Victorian Department of Health, 2015).

The diversity of paramedic employment was also a key driver for regulation (Eburn & Bendall, 2010). The Final Report on Options for Paramedic Regulation, which provided the background

for the Council decision, highlighted that there was significant confusion about who was, in fact, a paramedic. This had also been highlighted in several Coronial investigations when attempting to determine the reasonable conduct of practitioners identifying themselves as paramedics (Western Australian Department of Health & Victorian Department of Health, 2015). At the time of regulation, there were a range of vocational and university qualifications which could lead into practice as a paramedic. Over the previous decade, statutory ambulance services in most jurisdictions had been moving to pre-employment bachelor's degrees as the entry standard for employment (Bell et al., 2021). This was determined as the principal qualification level for registration as a paramedic with a grandparenting process over three years to allow for a range of existing practitioners to be recognised as having a uniform entry requirement to the profession. This standard was key to providing confidence to the public about the practitioners who were caring for them.

The need to regulate paramedics in Australia was predicated on achieving several key outcomes:

- The management of the risk the profession posed to the community
- Reduction of confusion over who can practice as a paramedic
- Improving the capacity to identify qualified practitioners for the ease of employment and workforce mobility (Western Australian Department of Health & Victorian Department of Health, 2015)

For many, the implementation of regulation was seen as an advancement of the profession. While the implementation of regulation is an important landmark in formal recognition of a profession, it is also a consequence of growth. Regulation is a critical mechanism in moderating the social contract between paramedics and the public they serve (Reed, 2022). Such sentiments echo Flexner's report examining medicine in 1910. One of Flexner's key observations was that unchecked, medicine's autonomy created a risk to the public as the profession had developed its professional identity in isolation (Borkan et al., 2021). Regulation presents a critical mechanism to mediate a profession's identity through reference to the safety, needs and expectations of the

community it serves (Irvine, 2016). In this sense, regulation is an important check on paramedicine as it evolves, and this is especially crucial given the speed at which this growth is occurring.

Regulation and Identity

Creating a new pathway for entry to the profession brought with it a change in the basis of paramedic identity. Professional identity is based on a range of influences including organisational affiliation, culture, social groups and roles they undertake (Ashforth & Mael, 1989; Donnelly et al., 2015; Hafferty, 2016). Historically, in the Australian context, organisational identity was one of the strongest bases for a practitioner association with the role and title of paramedic. Likewise, paramedics often associate their identity with their role within society and the doing of paramedic "work" (Donnelly et al., 2015; O'Meara, 2011).

Identity and professionalisation are inextricably linked. One of the key elements of a profession is having a clear professional identity and, for paramedics especially, this is deeply rooted in their sense of "doing" and "being" (Ewing & Smith, 2008; O'Meara, 2011). Paramedic identity is also historically rooted in a blue-collar craftsmanship, which has recently experienced changes through the transition of paramedic education to the university sector (Makrides et al., 2022; McCann et al., 2013; O'Meara et al., 2014). Paramedics in Australia have also been historically institutionalised through their primary employment by bureaucratic, statutory ambulance services. In this sense, paramedics could be considered to do "institutional work", that is work where the primary relationship around the provision of labour exists between the worker and the institution (Leca et al., 2009).

Regulation created a significant change in the formal recognition and inclusion of paramedics. One of the aims of regulating paramedics by including them in the NRAS was to give the public confidence in the qualifications and capacity of those health professionals who identified as

paramedics. This was important for paramedicine as, unlike in the case of a physiotherapist or General Practitioner, patients rarely choose their individual practitioner. Rather, the system assigns the practitioner to the patient in a situation where the patient is often not in a cognitive, emotional or physical state to check the bona fides of their practitioner. What is more, doing so would likely delay care in a situation which is more likely to be time-sensitive than those involving other types of practitioners.

With the introduction of regulation, some people who had self-identified as paramedics could no longer legally practice. This change to entry into the profession likely increased public safety as intended, however the qualifications, skill and experience of those identifying as paramedics existed on a continuum. Some on the cusp of reaching the new standard may have encountered a sense of existential crisis and as reported in the pre-registration survey, caused clinically significant anxiety in some applicants(Reed et al., 2021). Those with overseas qualifications also reported challenges translating their training and experience into the Australian regulation framework, which is especially concerning for those who had legitimately qualified and registered in other jurisdictions.

The move to registration not only changed the process through which people were accepted into the profession but also how their identity and professional status was established and maintained. Paramedics could no longer self-identify as paramedics but rather had to be accepted by the profession itself, ostensibly on behalf of the community, to hold this status. This highlights the tension between identification through doing and identification through a process of sanction. Greenwood (1957) highlighted community sanction in his list of the attributes of a profession. In this way, sanction both ensures the status of the profession and an exclusivity of the membership. It also highlights paramedicine's role within the social contract, ensuring that the community's expectations of a paramedic are met by vetting those who claim the title.

This tension highlights the differentiation of a profession and an occupation. One can engage in an occupation by simply doing that type of activity. However, that does not, in and of itself, make that occupation a profession. Freidson (2001) argues that one of the key elements in occupational status is that the members of the occupation have control over their own work, although he admits that no profession has absolute control over their work but rather that occupational control exists on a continuum. In the traditional paradigm of ambulance services in Australia, paramedics, or rather ambulance services, had control of the means of production, thus creating some occupational monopoly. However, paramedic employers (ambulance services) also controlled the workplace and thus employees. One's status as a paramedic was linked inextricably to whether one was doing the work or not. This could be terminated by removal of the opportunity to do that work, such as through injury or dismissal. Conversely, the community and, by extension, the profession itself (that is, the practitioners), had no control over who was allowed to undertake the work as that was wholly in the hands of employers.

The implementation of regulation has two significant impacts on paramedic identity. First, it allows for those who may be doing the work to be removed or penalised through a mechanism more directly controlled by the community that the paramedic serves. Second, it allows paramedics to maintain their professional identity at times when they were not doing "traditional" paramedic work. Previously, if you left clinical paramedic employment to move to an associated role, such as a health administrator or academic in paramedicine, you were no longer seen as a paramedic as your occupational connection had been severed. Regulation means those people now retain their status as a paramedic and "practice" is not simply patient-facing clinical care but also includes a range of other activities that draw on the professional body of knowledge of paramedicine. Likewise, a paramedic who is injured or leaves practice for other reasons may still maintain a link with the profession provided they meet the standards set by the regulatory body for inclusion in the profession.

Freidson (2001) states that it is not enough for the community to recognise a profession, but rather that recognition needs to exist within the state as well. This provides a formality to the recognition of the occupational group which can be codified. This is the case in Australian regulation where the use of the title "paramedic" is both defined in statute and administered by government agencies in a co-regulatory arrangement with the profession. Now, it is not simply inaccurate to call oneself a paramedic without proper authority but is in fact a crime (Moritz, 2019).

It would be an oversimplification to state that professional identity was solely linked to statutory recognition. However, in its absence there was confusion over how to appropriately use the title "paramedic". This led to both uncertainty in the public and to those within the profession being considered either "real" paramedics, ostensibly employed by a statutory ambulance service, or "fake" paramedics, those practicing in other environments. This dichotomy was divisive and relegated those outside statutory employment to an underclass of practitioners. While social issues are rarely remedied through regulation, in this case, the matter of one's right to call themselves a paramedic was clearly defined and adjudicated by representatives of the profession itself.

Summary

Regulation is a milestone in the development of a profession which helps to formalise the status of the profession and establish clear standards of entry and practice. Likewise, regulation is also an important moderating factor which society imposes on a profession to ensure that its conduct and function is continually referenced to the community it serves. The safety functions of regulation are critical in ensuring that practitioners' autonomy and power is checked.

Regulation likewise influences identity. By ensuring a clear standard of entry to the profession and enforcing codes of conduct and cultural norms around practice to remain in the profession, there is a clear external reference point to determine who is a member of the profession. Cultural and professional norms moderate professional identity by influencing the core values of the practitioner. Identity is reciprocally a key driver of professional norms. By ensuring

alignment between the norms of the profession and the individual values of the practitioner, the practitioner will conduct themselves in a way that reinforces good practice. In this way the disciplinary function of regulation is only required for those who deviate from the expected norms of both the profession and society. Increasingly this process is about remediation and realignment and not undertaking punitive action, although removal from the profession remains the final sanction to ensure the safety of the public.

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Chapter 2: Background and Context

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This version is expanded and updated to form part of this thesis.

Introduction

'Profession' and 'professionalism' are terms commonly used when discussing occupations and their status and activity. The terms professional and professionalism are often used interchangeably but have distinct functions and meanings. A 'profession' refers to a type of vocation or occupation that has characteristics which differentiate it from other vocations, not only in terms of function and activity, but also status, autonomy and societal value. The process of 'professionalisation' is the journey of an occupational group becoming a profession. Professionalism refers to the way members of the profession conduct themselves within a range of social and professional constructs.

The process of becoming a 'professional' is a journey of an individual as they become part of a profession and adopt behaviours, values and roles of those found in that community of practice. Ewing and Smith suggest that professional practice has several elements that are common to those operating in a profession. Those are:

1. *The practice is people-centred.* That is, the work involves people and interactions with people. The practitioner undertakes actions and roles which either directly or indirectly benefit individuals. The work is done in a way which is ethical, respectful and accountable.
2. *The practice is purposeful.* The practice involves deliberate acts which work for the benefit of others.
3. *The practice involves informed action.* The actions of the practitioner are informed by a body of knowledge which allows them to solve problems and make decisions. This includes not just theoretical knowledge, but also experiential and contextual knowledge that allows the practitioner to use that knowledge in an applied way.
4. *The practice is individual.* The practitioner is individually accountable for their practice, and their practice is based on individual judgments and decisions informed by individual experiences, values, interpretations and sense of self-efficacy. The practitioner's practice will grow and develop over time.
5. *The practice occurs in context.* The practitioner operates in a particular cultural, societal and economic context that informs standards and context of practice. (Ewing & Smith, 2008)

Concepts of 'professions' and 'professionalism' are particularly relevant to paramedics and paramedicine students. Paramedic practice reflects the characteristics above, and new entrants to the profession must develop the behaviours, traits and abilities to undertake practice in a way that is professional. Paramedic practice is about 'doing' things for people in an informed and accountable way. Professionalism is more than a set of rules; it is a way of 'being' a paramedic. With paramedicine registration, and the related changes to the discipline, the legal and ethical considerations for paramedic practice are influenced by professionalism and associated concepts.

Professions

Professions and their History

At a base level, a group of people within a division of labour and controlling the means of production is known as an 'occupation' (Freidson, 1988a). A range of theorists have investigated the transition of an occupation into a profession. Not all occupations are professions, nor do they need to be. Whether an occupation is a profession is a complex assessment. It is critical to frame occupations as being on a spectrum of professionalisation, rather than seeing an occupation or a profession as a dichotomous situation. The original archetypal professions, such as medicine, clergy and law, were considered professions because society had developed structures and beliefs that gave these occupations eminence and political power. As other occupations move through the spectrum of professionalisation, researchers and commentators looked to their characteristics and function to compare them to law and medicine and determine if they had enough similarity to be considered a profession (Carr-Saunders, 1933).

The study of professions is a relatively new field, even though professions themselves have existed for centuries. It was not until the beginning of the 20th century that any significant thought about what constituted a profession occurred. Early work was undertaken, primarily by sociologists, historians and economists such as Herbert Spencer, Sidney Webb, Beatrice Webb, R.H. Tawney, T.H. Marshall and Alexander Carr-Saunders (Freidson, 1994; Kurtz, 2021). The greatest contribution to the study of professions was by Talcott Parsons in the first half of the century, an American sociologist who explored the economic imperative of professions and their structure within society (Parsons, 1939). It was no coincidence that much of the early sociological research on professions considered their economic control of work, as many of the authors listed above were associated with the London School of Economics.

The Functionalists

Carr-Saunders (1933) theorised that professional status was based on a group's societal purpose and function. As such, the medical profession's position in society, and importance as an occupational group, was determined by its critical role in ensuring the effective functioning of society (Collyer et al., 2015; Margolis, 2005; Willis, 1983). The Structural Functionalist approach to sociology, most associated with Émile Durkheim, suggests that society is a complex machine made of many diverse parts that allow the whole to operate. As such, different professions will have a more or less valuable role in the function of society and this, in turn, determines their professional status.

The Structuralists and Trait-Theorists

Researchers following Carr-Saunders examined the structure of the professions themselves (Margolis, 2005). Greenwood proposed a definitionalist model providing a checklist of characteristics which a group must obtain in order to be considered a 'profession'. For example, Greenwood suggests that a group would be considered a profession if they have a checklist of specific traits. These traits are:

1. unique body of knowledge
2. authority
3. community sanctions
4. ethical codes
5. professional culture (Greenwood, 1957)

The structuralist approach has been one of the more common frameworks applied to paramedicine. This discussion has focused on whether paramedics have traits associated with professions and behave in ways commensurate with a profession (Reynolds, 2004; Williams et al., 2009, 2012;). However, this approach is limited by the lack of a clear threshold for the different components. There is no objective measure at which point a vocation has 'enough' of a body of knowledge, or any other trait, to qualify as a profession. Many proponents of this

approach used the ‘classic professions’(e.g., medicine and law) as a benchmark and once their characteristics were identified, other occupational groups were compared and contrasted to them. Despite the limitations, this approach does provide useful signposting towards elements that support professionalisation (Willis, 1983).

Both the Functionalists and their successors, the Structuralists, recognised that a key element was education and training. The work of professions was specialised and at the core was university-level education which prepared new members for the profession. This level of training was once of the elements that differentiated professions from para-professions and technical trades as universities played a role in both education and research (knowledge creation) at a level not seen in other occupations. It was this observation which underpinned the process of professionalisation that began to be studied in the 1950s.

The Monopolist Perspective

A third approach suggests a Monopolist view, where a profession is designated by its exclusive rights to certain practices or functions. This approach may be considered in view of the exclusive control of ambulance services and transport of the sick and injured in Australia by the State which constitutes the traditional division of labour of paramedics (Margolis, 2005). In other jurisdictions such as the US, this division of labour was controlled to a great extent by medical directors, as well as government and commercial stakeholders, who considered paramedicine an extension of their practice rather than a practice in its own right. Traditional views of professionalisation saw it as benign and even altruistic. Monopolist theory emerged from a more critical analysis of professions in the 1960s which viewed professionalisation as a process of creating dominance and exclusivity.

The Cultural Perspective

Freidson provided a further framework for considering professions. For Freidson, professions are defined by the level of autonomy which an occupation holds. It is a sociological

phenomenon, resulting from extensive cultural, political and historical factors, that medicine is almost universally recognised as the pre-eminent profession. Society's value of the medical profession, and those who practice medicine, form a critical part of that profession's identity and this was likewise initially supported by the state's sanction of this autonomy (Freidson, 1970). This autonomy and pre-eminence extend in many ways to the control or influence of other professions such as paramedicine, whereas in North America, and to a lesser extent historically in Australia, doctors dictated the scope and practice of paramedics. This is a basis of what Willis refers to as 'medical dominance' (Willis, 1983).

Recent Perspectives

Contemporary authors have described professions as being defined by sharing occupational values. This is in light of the increasing clustering of professionals within organisations. It is important to consider this in the Australian/New Zealand context of paramedicine where most paramedics have traditionally been employed by a small number of jurisdictional ambulance services controlled either directly or indirectly by government. This is a distinct occupational difference from professions such as medicine, physiotherapy and dentistry, where professionals are also commonly independent practitioners or parts of small private practices, although in some cases these professions do are employed within organisations as well. In this sense, the professionalisation of paramedics is aligned to their increasing autonomy and self-determination. However, unlike earlier models where the focus was controlling the means of production, as that power is still largely held by organisations, professionalisation may be seen more as a process of practitioners taking control over the processes of their work (Evetts, 2011; Williams et al., 2012).

While there has been increasing discussion of how paramedicine meets various definitions of profession, there is little agreement over what constitutes a profession in terms of paramedicine and how accurately paramedicine fits any of these models (Margolis, 2005; Williams et al., 2012). Exploring how paramedicine fits into a relevant construct of a profession is critical in

assessing the professionalisation journey of paramedicine and determining its relative position within a continuum of professionalisation.

This concept of professionalisation being on a continuum must also recognise that the continuum itself is constantly expanding. As society and the demands of the profession increase, so too will the requirements of the profession to adapt to this change (Newton & Hodge, 2012). This is an important concept as becoming a profession is not a one-way journey. If professions do not maintain their professional status, authority and clear societal role, they risk deprofessionalisation. Deprofessionalisation refers to the process where a profession's monopoly over a body of knowledge and the means of production is reduced. For example, if paramedics created an occupational environment where providers of services could legitimately use another type of practitioner to perform the same work (for example ambulance technicians the way some elements of nursing can be undertaken by Assistants in Nursing and Personal Care Assistants), then the control over the role of the profession would be eroded (Randall & Kindiak, 2008).

It is important to consider the cultural role of professionalisation. Within western cultures there are variations with the Continental (European) model of professions, which is more rooted in the role of the State where professionals have been more commonly engaged in collective and organisational practice. Likewise, the Anglo-American model (more commonly used in Australia) is based around individual and collective autonomy (Evetts, 2011). Globally, the Middle East, varying regions of Asia, and Scandinavia, all have distinct cultural and functional models of what constitutes a paramedic and how those paramedics practice (Dick, 2003). Many Euopean models utilizing the Franco-German model where a paramedic is paired with a physician who leads clinical care, are recently increasing the autonomy of their non-physician practitioners. Regardless of the model of paramedicine or emergency care delivery, to some degree, the function of paramedics within society remains consistent so each model does share various common elements as part of the wider discipline of paramedicine.

Paramedicine as a Profession

Paramedicine is an academic discipline that underpins the delivery of paramedic services. The use of ambulances and provision of first aid have been documented back to biblical times. The use of vehicles to convey the injured continued over the decades in essentially the same manner until the 1960s when various reports in the US and UK created an impetus to transition ambulance workers from simply transport providers to health practitioners (Howie-Willis, 2009; Margolis, 2005; Moritz, 2018; National Highway Traffic Safety Administration, 1996). Early developments were focused on the provision of advanced level care to patients with serious traumatic and cardiac conditions as these were identified as having the highest impact on morbidity and mortality from improved patient care outside health facilities. Despite the long history of ambulance service provision, paramedicine has only been described as a discipline in the last two decades. In recent years, the term ‘paramedic’, which emerged in the 1970s, has been increasingly adopted as a key term to describe members of the profession (International Paramedic, 2011; National Highway Traffic Safety Administration, 1996). Debate continues as to whether paramedicine constitutes a profession in the sense of other comparable occupational groups such as medicine and nursing (O'Meara, 2009; van der Gaag & Donaghy, 2013; Williams et al., 2009, 2010; Williams et al., 2015; Woollard, 2009).

Regulating Professions

While the mechanisms of regulation are dealt with in more detail elsewhere within this text, it is important to consider the relationship between regulation and professional status. Key concepts in a profession are both a degree of self-regulation and a mechanism for sanction by the community. Self-regulation refers to the profession being the origin of the tenets of its regulatory status. That is, rather than having conditions imposed by another body, for example , when licensure is the mechanism of regulation, paramedics themselves have a key role in setting standards and determining the membership of their profession through codes, educational standards and registration requirements (Woollard, 2009).

In this way, the profession takes responsibility for its relationship with the community it serves (Reed 2022). Professional behaviours become increasingly intrinsic in that positive professional behaviours are practiced by virtue of being a member of the profession rather than being imposed by employment conditions or other external means. As paramedics develop the professional trait of autonomy, they simultaneously develop the reciprocal trait of accountability (Cruess & Cruess, 2016). Registration, which has at its heart the protection of the public, is a response to the autonomy paramedics have already achieved in their decision making and clinical scope. Paramedics can make a range of autonomous decisions based on their body of knowledge and experience, therefore there needs to be a mechanism to ensure they are accountable for those actions.

It is this autonomy and self-regulation that support the professional status of a profession such as paramedicine. There are mechanisms for regulating an occupation; however, these, too, exist on a continuum. For example, some occupations are entirely unregulated. For others, there is a third-party authorisation, often by government or quasi-government agencies, which grants members of an occupation the authority to work. A common mechanism in jurisdictions is licensure, which provides an authority to practice, or undertake an activity, but does not deal with misconduct or practitioner safety issues (Western Australian Department of Health & Victorian Department of Health, 2015).

Paramedicine has previously operated in an unregulated and unregistered way without the structures, both formally and informally, which have defined other, older professions. The status and professional position of professions often draws on historical development and relationships with the societies in which they exist (Knox et al., 2016). As a result, there is a view that professionalisation is happening to members of the profession rather than those members choosing to adopt the values and practices of a profession (Wankhade, 2016).

Professional Identity

Professional identity is a core part of being a member of a profession and is inextricably linked with professionalism. Identity is a complex and subjective concept of self. Identity works on several levels including an individual level, an interactional level and an institutional level. Identity is the framework by which one conceptualises the human world and how one fits into it. Through this framework the individual expresses who they are, based on how they conceptualise themselves. Not only is each level of identity important, but the interaction between levels has an important bearing on how one conceptualises a sense of self. It is based on identity that one's sense of professionalism is constructed (Monrouxe, 2016).

Understanding Identity

The concept of identity can be delineated in terms of culture, organisational identity and individual identity (Cruess & Cruess, 2022). The formation of identity in a health profession is based on a range of factors. At the core is the individual's identity as a person. This is formed through characteristics including genetics, e.g., gender and ethnicity and also through social elements such as upbringing, religious and philosophical views and life experience. This is the basis on which a professional identity is formed, and those underlying characteristics make the individual's professional identity unique, even if they operate in the same environment with the same training as others. For example, a female Anglo-European Caucasian paramedic from a metropolitan area will have a unique worldview compared to a male Indigenous paramedic from a rural area even if they trained in the same way and work in the same place by virtue of the fact that their experiential and cultural contexts are different.

From this base, as new practitioners are educated and begin employment, they are socialised into the profession. Socialisation, the way a person learns to function within a particular group, is the primary way in which new practitioners form their professional identity. During this process, and beyond, new practitioners not only learn new knowledge and skills, but they also learn behaviours. Socialisation is different to education; role models and mentors have a key

place in modelling professionalism and building professional identity through demonstrating positive professional behaviours. Through this process, their position within the community of paramedic practice changes. They begin the process in a state known as 'legitimate peripheral participation', where they are not a member of the community of practice, to a position of full participation, where they are an accepted member of the community of practice (Cruess & Cruess, 2016). The process of education also impacts on socialisation. In Australia during the 19th and 20th centuries, ambulance officers, and later paramedics, trained through an apprenticeship system and were engaged in varying levels of practice as the commencement of their training and employment coincided. Since the introduction of university-level education, the process of socialisation is accelerated and informed both positively and negatively by the experience of university education producing entry-level practitioners who conceptualise their worldview differently (Devenish et al., 2014).

Social Identity Theory suggests individuals gain their sense of identity from a sense of belonging or alignment with either tangible or intangible social elements (Ashforth & Mael, 1989). This approach combines theories of personal identity development (i.e., that people's identities are a combination of unique personal traits) and theories of self-categorisation (how we choose to differentiate or compare ourselves, in this case by membership of a group or community) (Thistlethwaite, et al., 2016). Social Identity Theory was proposed by Tajfel in the 1970s and suggests that individuals join groups for a sense of belonging and purpose with this group membership becoming central to their sense of identity (Leaper, 2011).

This approach may have application for paramedicine as paramedic culture in the Australian context has arisen from membership of, or employment with, a small number of monopoly organisations providing identity through inclusion in a well-established and definable group -the ambulance services. Traditionally, one was a paramedic when they were within the organisation and ceased to be a paramedic if they left. This classification created a crisis of identity for those leaving the ambulance service, as well as those who move into other paramedicine-related roles

such as academia, especially if leaving prior to retirement (Munro et al., 2016a). Likewise, the rise of an increasing number of new employers outside of the traditional government-controlled services providing paramedic services created confusion about whether practitioners within these new organisations were paramedics, especially in the absence of a registration regime within Australia prior to December 2018 (Eburn & Bendall, 2010). Significantly, with a cultural history rooted in the monopoly providers, professional identity is likely to shift from being organisationally based to being centred on the professional group or community of practice as paramedicine is regulated. This transcends organisational membership, which would no longer become the sole delineator of inclusion in the profession. However, organisational and professional identity are not mutually exclusive, and these identity influences will produce a hybrid identity with elements of both (Evetts, 2011).

Changing Identity

Professionalisation is inextricably tied to changes in the sense of identity. Paramedicine has experienced challenges to its identity in recent years driven by change of workload and function, ongoing debate over the position of the profession as an emergency or health service and challenges around the alignment of training and practice (Donnelly et al., 2015; Gilmour, 2014). As a vocation, paramedicine's basis was found within a division of labour which has existed for well over a century. The role in the transport of patients to definitive care is clearly defined in both the function and history of paramedics. Ambulances are a tangible thing which have only existed under the control of 'ambulance officers' whose vocational terminology and identity is directly associated with the means of conveyance. No other health profession has operated within this domain within the Anglo-American model of ambulance service delivery (Margolis, 2005). Likewise in the Australian context, service provision has been traditionally invested in state-controlled monopoly providers, which has driven a high degree of bureaucratisation in service delivery (Howie-Willis, 2009). The transition of terminology from 'Ambulance Officers' to 'Paramedics' itself constitutes a meaningful change in identity in separating the occupation from the means of production, that is, the ambulance vehicle.

Increasingly in many jurisdictions, ambulance services are being rebranded as ‘paramedic services’ to allow room for future occupational growth and role expansion (International Paramedic, 2011).

One of the key changes, especially in the context of Australian paramedics, is the transition from the bureaucratically controlled vocation, defined by its division of labour, to a profession which is more defined and controlled by the professionals participating in it. The shift towards a model of professionalism which requires greater autonomy and indirect control through elements such as registration and social controls, may challenge paramedics who have traditionally had clear external boundaries defining their professional identity and underpinning their culture (Margolis, 2005). This potentially becomes problematic when their sense of professional identity is required to change or adapt to new paradigms. Likewise, changes in role or function can place stress on professional identity (Hercelinskyj et al., 2014).

The diversity of training approaches may create a schism between newer entrants and those who have been in the profession for some time. The newer entrants to paramedicine have often been educated and trained in a tertiary setting and received formal education in areas such as ethics, decision making and professionalism. Historically, older members of the profession have been trained in a more vocational model with a focus on technical competency. This dichotomy can create an inherent tension between those who entered paramedicine with the expectations of entering a profession and have undertaken a process of qualification more like that of other registered health professionals, and those who had entered paramedicine when it was viewed more as a trade or vocation, before the term ‘paramedicine’ had even been coined (van der Gaag & Donaghy, 2013). For many paramedics, professionalisation is something which has happened to them rather than something they actively participated in, or expected as, part of their occupational journey.

Culture and Identity

Paramedic culture is poorly understood and under-researched. Wankhade draws parallels between ambulance service culture and Schein's classifications of organisational culture. This suggests paramedics routinely judge change based on the local impact of change and their own sense of occupational purpose. Paramedics may not easily reconcile changes in local conditions with larger organisational or systemic goals (Wankhade, 2010). Likewise, as in all cultures, paramedics define themselves by a collection of shared assumptions and values which exist across the occupational group. Change is then measured against how comfortably it sits within the existing cultural framework (Reynolds, 2009; Wankhade, 2010). Lucas and Kline (2008) suggest paramedic culture itself is a key barrier to change and can underpin paramedics' resistance to change. This is important as changes in identity always operate within the context of culture.

This resistance to change is a fundamental issue for paramedicine as professionalisation is inherently a process of change. The capacity to be flexible, to develop and to adapt to changing social and professional environments is essential to the longevity of a profession. A significant lack of change can create a void which may be filled by another profession. European models of ambulance provision that are nurse or physician-based, with specialist sub-disciplines of those professions emerging around ambulance-based practice, show that other disciplines can operate in what are traditional paramedic roles in other countries. Professional power can also be used to resist change. As such, without the capacity and willingness for change, professions risk the phenomenon of deprofessionalisation (Newton & Hodge, 2012).

The Challenges of Identity

Paramedicine is a relatively new profession and has undertaken professionalisation in a short period of time. In contrast, medicine has been taught within universities for over a millennium and both medicine and nursing have been engaged in some form of regulatory structure since the 19th century. Paramedicine has achieved these milestones within the last 25 years. Older professions have had considerable time to study and establish their identity and develop frameworks around them. Nursing has a defined paradigm of practice based around caring and the patient. Medicine, likewise, has a paradigm of practice based around healing (Bender, 2018; Cruess & Cruess, 2016). Paramedicine as a new profession has not sufficiently developed a body of knowledge around identity and process to have a full sense of a definable professional identity (Carter & Thompson, 2015). This means that as paramedicine develops as a profession, it likewise will develop more of a sense of its own identity, and this will in turn impact on the development of each individual practitioner's identity. It is important to note that there is emerging work on the clinical paradigm of paramedicine (Carter & Thompson, 2015). Regardless, paramedics share, with colleagues in medicine, nursing and other health disciplines, traits of being health professionals such as autonomy, integrity and trustworthiness, which are ubiquitous to those who provide care at an advanced level. While it is valuable to study how other professions have approached issues of professionalism, it is important to understand that the professionalisation journey of a discipline, such as medicine, is historically and culturally different from the journey which paramedicine is undertaking (Irvine, 2016).

Professionalism

There is no consensus definition of 'professionalism' in health care despite several decades of academic interest. There is an ongoing academic discussion about whether professionalism is an ethos or philosophical framework or a set of attributes (Hodges et al., 2011; Birden et al., 2013). Regardless, professionalism underpins the actions and decisions of professionals in a way which

is at the core of their practice. This is what makes professionalism difficult to both define and place within professional practice.

The Role of Professionalism

Professionalism is a concept intrinsic to professions. Freidson refers to professionalism as a 'third logic' - that is, a motivation for the activities of an occupational group compared to market forces with the nature of work being driven by forces of supply and demand, and organisational forces, being practice driven by operational needs of organisations (Evetts, 2011; Freidson, 2001). Freidson (2001) indicates that professionalism is an occupational value that makes the work of professionals distinct. However, it can be difficult to separate the professionalism of practitioners and their community of practice from the occupational values of organisations, especially in large organisations such as the traditional employers of paramedics in Australia (Evetts, 2011).

Evetts (2011) refers to the external or 'top down' discourse of professionalism as 'Organisational Professionalism' and the intrinsic discourse of professionalism as 'Occupational Professionalism'. Increasingly, and especially in large public sector organisations such as paramedic services, there is a hybrid professionalism relying on both organisational and occupational elements. While some may see organisational professionalism as a means of facilitating change or worker control, as per writers such as Foucault, organisational and occupational values may even be mutually supportive (Foucault, 1963/1994).

Defining Professionalism

Professionalism is a complex concept, made even more difficult by multiple applications of it for different purposes. Birden et al. (2014) examined existing work around professionalism in the discipline of medicine and found a unified definition elusive. However, several themes emerged:

- *Professionalism as a set of attributes:* This view of professionalism relied on professionalism being seen as positive attributes that underpinned practitioners' decisions and actions.
- *Professionalism as morality:* Professionalism was a set of moral or ethical beliefs or values that guided practitioners in their behaviours and actions.
- *Professionalism as duty:* Professionalism was a sense of purpose and duty to the community to practice in a way that instilled trust in them by the community and showed the practitioner was worthy of the role and status the community gave them. (Birden et al., 2014)

These approaches to professionalism have value and merit. However, it is difficult for each approach to fully address the concept of professionalism (Hodges et al., 2011). Likewise, it is important to note that professionalism is contextual to organisations and cultures (Burford et al., 2014). What may be considered professional practice by a paramedic in Australia may not be entirely identical to what is considered professional practice by a paramedic in Qatar, even though practitioners are performing largely identical healthcare roles. However, commonalities will exist, and differences will be heavily influenced by historical and cultural factors.

Hodges et al. (2011) found that as well as multiple themes, there were multiple approaches to professionalism:

- *The Individual Discourse:* This element looks at professionalism as a factor of identity and beliefs intrinsic to the practitioner.

- *The Interpersonal Discourse:* This approach looks at how professionals appear to the community in terms of their consistency of approach, communication, interactions and role modelling of values and beliefs.
- *The Societal-Institutional Discourse:* This considers that professionalism is a learnt behaviour drawn from the context of societal norms, group norms, (e.g., employment groups), and statutory requirements for practice, (e.g., in most jurisdictions providing different levels of care based on race or gender is illegal).

In broad terms, professionalism is a way of behaving, making decisions and engaging in practice which is:

1. grounded in the individual's intrinsic beliefs, morality and identity
2. consistent with the values of the discipline and community of practice
3. informed and appropriate to the cultural norms where the practice is occurring

The Social Contract

The position paramedics have within society is based on a social contract between the profession and the community. The concept of the social contract was originally proposed by philosophers such as Locke and Rousseau in the 17th and 18th centuries to describe the relationship between government and society and was later applied to describe the relationship between medicine and society in the 19th century (Cruess, 2006). Within this social contract, society has expectations of paramedics as practitioners separate to service expectations from organisations. For example, the community should expect paramedics to:

- provide patient-centred care based on available evidence
- support members of society at potentially vulnerable times
- act ethically and empathetically
- be competent and knowledgeable
- treat patients and other members of the community with respect
- promote the public good.

Likewise, paramedics can expect society to:

- allow paramedics to self-regulate and maintain autonomy
- maintain the role of paramedics within the healthcare system
- trust practitioners and treat them with respect
- appropriately support or remunerate paramedics for doing work within the structures of the healthcare system (Cruess & Cruess, 2016).

The recognition of these reciprocal rights and responsibilities creates the social contract (Cruess, 2006). If individual practitioners or the profession fail to support its side of the social contract, then the social contract may be rewritten. Likewise, if society fails to meet the expectations of the profession, it may seek to reform the social contract. This process is known as "social negotiation" (Cruess & Cruess, 2020). This is not a physical contract, such as an employment contract, but rather a shared understanding of the unique role that paramedics play in society and what that role and status entails. The social contract helps support the attributes and behaviours associated with professionalism (Cruess & Cruess, 2016). While the social contract does not specifically indicate what is professional and unprofessional, the implication is that professional behaviour supports the maintenance of the social contract (Reed, 2022).

Some argue that relying on the social contract itself as a basis for professionalism is both restrictive and outdated (Hafferty, 2016). However, the concept of professionalism as the basis of the social contract is still a widespread one. The functionality of the social contract relies upon the expectations being realistic, as unrealistic expectations may erode trust that underpins the contract. It is critical to respect the role society plays in formulating the contract, as the profession cannot unilaterally determine its own standards without societal context (Cruess, 2006).

Students and Professionalism

The education of new paramedics is a critical time for the development of both a sense of professionalism and professional identity. Medicine has been exploring this process for decades and a range of approaches and views have emerged (Cruess & Cruess, 2016). What is critical to understand is that becoming a professional is a multifaceted process with multiple influences. In previous decades, increasing emphasis was put on including the attributes, ethics and characteristics of professions; however, increasingly academic discourse on professionalism education is shifting to a focus on values and identity (Hafferty, 2016).

The common discourse around professionalism and professional identity utilises constructivism. In this sense, the student studying paramedicine constructs an identity as they study, a process that will continue as they become a practitioner (Mann & Gaufberg, 2016). How they construct that identity is critical and the learning experience, including field and/or clinical placement, is critical in socialising the student and providing context for practice in a profession (Cruess & Cruess, 2016). It is important to understand that the process may be transformative. The student has an identity when they begin their education and, through the education process, develops a new identity which includes their role as a paramedic and the values and behaviours that are inherent to that role (Hafferty, 2016).

It takes a Village to Train a Paramedic

An important way of reinforcing professional practice and supporting positive professional identities is through role modelling and cultures that support professionalism. Mentors and role models exhibit and display behaviours which will optimally support professional practice. This is important to students because role models and mentors already belong to the community of practice that students wish to enter (Cruess & Cruess, 2016). From this perspective, it is a crucial element of professionalism that practitioners consider not only how their actions and values reflect their practice, but also what messages they send to students as part of the socialisation process. While there is an expectation of self-control and self-review, often

demonstrated through reflection, one of the features of a profession, and its self-regulatory processes, is peer review. Mentors and role models help condition students to both self-review and peer review. Peer review is a key part of the profession managing its own standards as peer review involves others in the community of practice providing feedback and guidance on a paramedic's practice. This is one of the main roles of a mentor or preceptor. Likewise, self-review is the capacity for a practitioner to reflect and review their own personal alignment to personal and professional values. Both processes are critical for the profession to regulate itself internally (Hafferty, 2016).

Expectations of Students

As part of the process of learning professional behaviours and values, students need to begin to self-regulate both in the classroom and during experiential learning such as clinical placements. In the Australian context, students hold a student registration with Ahpra and as such are governed by some, but not all, of the regulation standards. As well as appropriate registration standards and codes, they are bound by a range of codes and policies of their educational organisation. Like any other set of skills, professionalism needs to be practiced and become part of the student's core learning.

Professionalism in Practice

Given the complexity of professionalism, how would one go about practicing it? The key lies in understanding the various contexts and influencers of professionalism. Professionalism is not just one homogeneous concept, but a complex set of values and behaviours shaped by ethics, culture, statute and public expectations. It is important to consider that the professional behaviours are not, in and of themselves, professionalism, but rather a manifestation of underlying professionalism.

Behaviour is Intrinsic

The core of professionalism sits with having a well-developed professional identity and a strong set of core beliefs (Hafferty, 2016). It is important to see behaviours such as altruism and compassion as extensions of underlying values which a practitioner uses to express professionalism. A practitioner behaves altruistically because they fundamentally believe altruism is the correct professional behaviour for a situation, not because there is a list of behaviours which dictate 'paramedics are altruistic.'

Values and identity are developed as a practitioner is being socialised into the profession and, as mentioned, based upon pre-existing personal beliefs; assuming those values are consistent with the profession's values (Cruess & Cruess, 2016). Without these underpinning elements, behaviours are rehearsed or staged rather than being genuine and, one could argue, do not fully demonstrate professionalism. Practitioners need to consider their worldview and their concept of what it means to be a paramedic, and a health professional in general, within this context.

There is a professionalism discourse which proposes that the core of professionalism is humanism. Humanistic values include such things as empathy, compassion, caring, respect and service. This approach proposes that if practitioners hold these values at the core of their practice, and in their worldview, that professional behaviours will be a natural result of acting consistent with these values (Branch, 2015). This approach grounds professionalism more in morality than a checklist of behaviours or codes.

Codes are a Reference Point

Just as values and identity underpin professionalism, codes, statutes and other governance statements provide a reference point for practitioners. They help codify the underlying professional values and behaviours into a more tangible form. These codes can then be used to help determine if behaviours or actions are likely to have fallen outside the parameters which the profession considers appropriate. The profession establishes the boundaries to ensure

practitioners by virtue of their acts and omissions do not breach the social contract and fail to meet the expectations of society. This removes any ambiguity created by assumptions that practitioners share a common interpretation of professionalism and professional behaviour (Irvine, 2016).

Paramedics can use these codes to help understand the profession's expectations of practitioners, which, in turn, reflect the responsibilities in the social contract. Examples of codes and standards in Australian regulation include the Code of Conduct, Professional Capabilities for Registered Paramedics, the Recency of Practice Registration Standard and the Continuing Professional Development Registration. Codes provide a useful educational tool for new practitioners as well as a reference point for existing practitioners:

> *The function of a modern professional code is to describe the standards of knowledge, competence, skills, and conduct expected of those doctors who are licensed to practice. Good codes are critical statements about professional identity – they tell everyone what the profession stands for*. (Irvine, 2016 p206)

Patient Views are Important

As parties in the social contract, patients and other members of the community have a stake in paramedic professionalism. The profession of medicine has looked extensively at the relationship between perceptions patients hold of practitioners and professionalism:

> *For patients and their relatives, a good doctor is one whom they feel they can trust without having to think about it. They equate 'goodness' with clinical and ethical integrity, safety, up-to-date medical knowledge and diagnostic skill, sound judgment, and an ability to form a good relationship with them. For patients, good doctors are clinically expert yet know their limitations. They are honest, interested in their patients, listen to them, will put themselves out for them, and are kind, courteous, considerate, empathetic, respectful, and caring. They are good team players when teamwork is needed. All these attributes*

> *matter because patients know their doctors' advice and decisions can affect the outcome of their illness – even make the difference between life and death or between enjoying a speedy recovery and suffering serious disability.* (Irvine, 2016 p.202)

The position paramedics enjoy because of the social contract, that is trust, self-regulation, status, autonomy and control of their work, is fundamentally premised on the trust of the society and the trust of patients (Cruess, 2006). Professionalism is the element that reassures patients and others that paramedics are meeting their part of the social contract. For this reason, it is critical that paramedics remember that it is patients and society who have put paramedics in the position they occupy, and that the advancements of the profession have reinforced that position and helped renegotiate the social contract. If we follow the logic of the humanism approach outlined above, these core values are consistent with the widely held mantra of person-centred care, which is inherently humanistic and consistent with the same values underpinning professionalism.

The Future of Professionalism

Professionalism is not a monolithic set of standards carved in stone which paramedics will follow indefinitely. Like any other part of a profession, professionalism and the social contract are constantly being reviewed and revised (Hodges, 2016). Paramedicine has experienced a significant rate of change in a relatively brief period and is still coming to terms with the responsibilities and rights of self-regulation. This process will continue, and in fact needs to continue to avoid the risk of deprofessionalisation (Randall & Kindiak, 2008). It is important to remember that the current regulatory environment arose not only because of advances in education, scope and role, but also because of increases in risk and complexity of the profession.

Many professions have experienced a significant journey of professionalisation, and this journey is ongoing. Medicine is of note as it experienced a rise of significant autonomy, which ultimately required regulation and increased codification to satisfy the public of medicine's compliance with the social contract (Cruess, 2006). There is much to be learned from the journeys of other professions given paramedicine's nascent status. It is likely during professional evolution that the roles and scope of paramedics will develop beyond their current primary function of emergency response. As such, when patients start encountering paramedics in other settings, such as their general practitioner's office or on a community mental health team, the social contract is again slightly revised. Such role changes are already beginning and as such variations of the social contract to suit such conditions are evolving.

With each new iteration of paramedic practice will come a slightly different professional identity. However, the core of this professional identity will continue to be the identity of a paramedic and the ethical and professional values upon which the profession bases itself. The professional identity of paramedics is still in a significant state of development and is not fully understood. Exploring the paramedic identity will continue to be a source of intense academic and professional interest for some time.

Conclusion

Regardless of which theoretical approach to professionalisation is used, it is increasingly clear that paramedicine, in the Australian context, has moved sufficiently far on the occupational spectrum to be considered a profession. However, this continuum does not have defined beginning and end points, so the profession still has significant capacity to evolve and, under certain conditions, regress. Key elements such as university education, an increasingly defined body of knowledge, self-regulation and increasing autonomy provide both opportunities and challenges for paramedicine.

Professionalism is not a monolithic set of standards which paramedics will follow indefinitely. Like any other part of a profession, professionalism and the social contract are constantly evolving. As paramedicine moves forward as a profession it is increasingly important that the discipline explores its identity and its basis for professionalism. Professionalism can be approached a several of ways: as a set of attributes, as a set of humanistic values or as an extension of the social contract. Professionalism is all of these things and what ultimately counts most is the experience of the patient at the centre of the paramedic's care.

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Chapter 3: Literature Review – Professionalism and Professionalisation in the Discipline of Paramedicine

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This article reports the result of a 2018 literature review.

Abstract

Background

Professionalisation was cited as one of the key drivers for the recent addition of paramedics to the National Accreditation and Regulation Scheme (NRAS) making paramedics the fifteenth health profession in the NRAS. Self-regulation inherently shifts the basis of establishing professional identity and the formal authority for determining professional standards. This has increased discussion of professionalism in paramedicine, however, professionalisation and professionalism are often poorly defined concepts with a myriad of interpretations.

Method

A scoping review was conducted to determine the available literature about professionalism and professionalisation in paramedicine. The review utilised ten academic databases augmented with Google and Google Scholar to capture grey literature. 2740 results were refined to fifty-three sources for review.

Results

Several works on paramedic professionalisation explore elements such as autonomy and occupational characteristics. Others consider the process of professionalisation for paramedics in the United Kingdom (UK) and Australia. Education is discussed as a key factor in professionalism, while the increasing scope and diversity of roles in paramedicine is explored as indicative of professionalisation. Several UK papers relate professionalisation and culture to change processes within paramedicine and paramedic organisations.

Discussion

Academic work on professionalisation and professionalism in paramedicine appears sporadic and may benefit from exploration of a wider range of theories. Paramedicine has been described as constantly and rapidly developing around its practitioners rather than being a stable profession where practitioners enter with clear expectations of their ongoing identity. Further work is needed to understand the process of professionalisation that paramedicine is undergoing within its cultural and professional context.

Introduction

The concepts of professionalism and professionalisation are often discussed within the context of emerging professions and are part of the discourse of professional evolution. With the recent registration of paramedics in Australia under the National Registration and Accreditation Scheme (NRAS) for health professionals in 2018, there has been increased interest in better understanding the relationship between paramedicine and both professionalism and professionalisation (COAG Health Council, 2017; Knox & Batt, 2018; Townsend, 2017b). This discussion occurs in two facets. Firstly, there is discussion of the readiness of the profession to engage with what is considered a milestone of professionalisation (Knox & Batt, 2018). Secondly, there is debate over how the occupation will function within the paradigm of a registered profession, and thus operate in the environment of self-regulated professions with a range of standards and accountabilities which have not been previously applied to paramedicine (O'Meara, 2009; Trede, 2009).

Professionalism and Professionalisation

“Professionalism” and “Professionalisation” are both concepts related to the conduct of a profession within a spectrum of occupational behaviours and status. These terms are sometimes used interchangeably but are distinct elements of a profession or discipline. These concepts have been difficult to define and have been subject to academic discourse for decades (Freidson, 1994; Hodges et al., 2011).

The profession of medicine has engaged in significant discussion around professionalism over the last three decades, both in terms of attempting to define the concept and establishing how to assess it within an educational context (Birden et al., 2014; Hodges et al., 2011). Despite these efforts, a unifying definition of professionalism has been elusive in medicine and the health professions. Professionalism is a complex construct as it is influenced by situational, cultural

and organisational elements with a range of theories underpinning its discourse (Burford et al., 2014; Evetts, 2011). However, a number of frameworks have been established to help conceptualise professionalism (Birden et al., 2014). By looking at the behaviour of practitioners through various lenses, including their individual traits and behaviours, interpersonal interactions and societal-institutional context, professionalism can be seen as a constructed set of behaviours and expectations (Hodges et al., 2011). In essence, professionalism is doing what is appropriate in a situation based around personal, societal, and disciplinary values and expectations.

Professionalisation is the process by which a vocation evolves through a conceptual occupational hierarchy. As such, professions exist on a continuum of status or occupational development rather than a "profession" being a fixed point in the development of an occupation (Margolis, 2005). In this way the concept of a "profession" can be applied broadly and in different ways to a range of occupations (Freidson, 1994). There are a number of frameworks through which this process can be viewed. Earlier works by Greenwood and Flexner concentrated on trait-based theories which looked at a list of attributes a profession required. Flexner's work involved an early attempt to establish an empirically based set of conditions to determine a profession. Often the "established" professions of law, medicine and clergy were referenced due to their historical longevity and social status (Greenwood, 1957; Hafferty & Castellani, 2010). Much of the academic work around professionalisation emerging in the 1960s, 1970s and 1980s, notably by authors such as Freidson, Wilensky and Klegon, suggests that power and autonomy are key elements of a profession (Freidson, 2001; Klegon, 1978; Margolis, 2005). A profession experiences developments which propel it along the continuum (Freidson, 1994). Additionally, the profession must concurrently maintain specific boundaries and occupational values while its membership must reflect the values of the profession and equally evolve within the paradigm of that profession (Randall & Kindiak, 2008).

All vocations undertake some journey of evolution and development and, inevitably, face challenge. While traditional professions such as medicine, law, clergy and engineering have had significant writing on their journey, there is also value in considering the journeys of other health and caring disciplines such as nursing, pharmacy, physiotherapy and social work (Willis, 1983). While paramedicine is unique in its historical, cultural and industrial context, elements, such as the establishment of paramedic academics, do mirror developments in medicine and nursing (Hafferty & Castellani, 2010; Munro et al., 2016b).

This scoping review seeks to clarify the existing literature around paramedicine and the concepts of professionalism and professionalisation. The results will help establish the current level of discourse around these topics and establish a baseline of our current understanding of the concept of a profession as it related to paramedicine. It is through examining how paramedics conceptualise the profession and by understanding the sociological theories of professions that a clearer understanding of paramedicine's journey of professionalisation can be established. All professions change and evolve over time due to a range of factors such as culture, regulation and role in society, however, it is critical to understand the specific professionalisation journey paramedicine has undertaken and what elements impact on the growth of the profession. Such understanding helps guide the profession in its inevitable professional evolution.

Methods

This scoping review provides a broad overview of the available literature concerning paramedicine, and professionalism and/or professionalisation. Scoping reviews provide the opportunity to map existing literature to survey a topic area to both assist in defining a research question and as a precursor to a more extensive systematic review (Armstrong et al., 2011). This scoping review follows the six-stage approach outlined by Arksey and O'Malley (2005):

1) identifying the research question
2) identifying relevant studies
3) study selection
4) charting the data
5) collating, summarizing and reporting the results
6) optional consultation

By using this method, a systematic approach to screening available literature was undertaken utilising a range of sources common to the study of professions and paramedicine. These sources included both peer reviewed and grey literature. For academic literature, EBSCO Host was used to access a range of databases (Table 3.1.).

Table 3.1: Databases used in EBSCOHost search

CINAHL Plus with Full Text
E-Journals
ERIC
Health Business Elite
Health Source: Nursing/Academic Edition
MEDLINE
PsycARTICLES
Psychology and Behavioral Sciences Collection
PsycINFO
SocINDEX

EbscoHost searches were undertaken by starting with a core search of "paramedic OR EMT OR Emergency Medical Services OR ambulance." This encompassed the key terms for both practitioners (Paramedic and EMT – meaning Emergency Medical Technician) with the key terms for services (Emergency Medical Services and ambulance), which cover most services operating in Anglo-American models. These terms were combined with "Professionalism" and "Professionali?ation" to capture regional spellings of professionalisation. Google and Google Scholar were used to search for academic literature not found in EBSCO host and for grey

literature, e.g., reports or government documents. Identical search terms were used using Boolean operators. For Google, the "Verbatim" function was used to limit to the search terms (Table 3.2).

Table 3.2: Search terms by search tool.

EBSCOHost: "Paramedic OR EMT OR Emergency Medical Services OR ambulance" in combination with a search for "professionalism or professionali?ation" Google Scholar: Advanced Search combining "Paramedic OR EMT OR Emergency Medical Services OR ambulance" with "Professionalism OR Professionalisation".

The inclusion criteria included only sources in English and where full text could be obtained. Google Scholar was limited to available full text either through open access, the Western Sydney University Library, the University of Wollongong Library, the Clinical Information Access Portal or the National Library of Australia. EBSCOHost results were screened for language and then duplicates removed. An initial review of Google and Google Scholar showed results past the first 100 provided no new content and a rapidly diminishing level of relevancy. As a result, Google and Google Scholar results had the first 100 search results manually reviewed for inclusion. The process is shown in Figure 1.

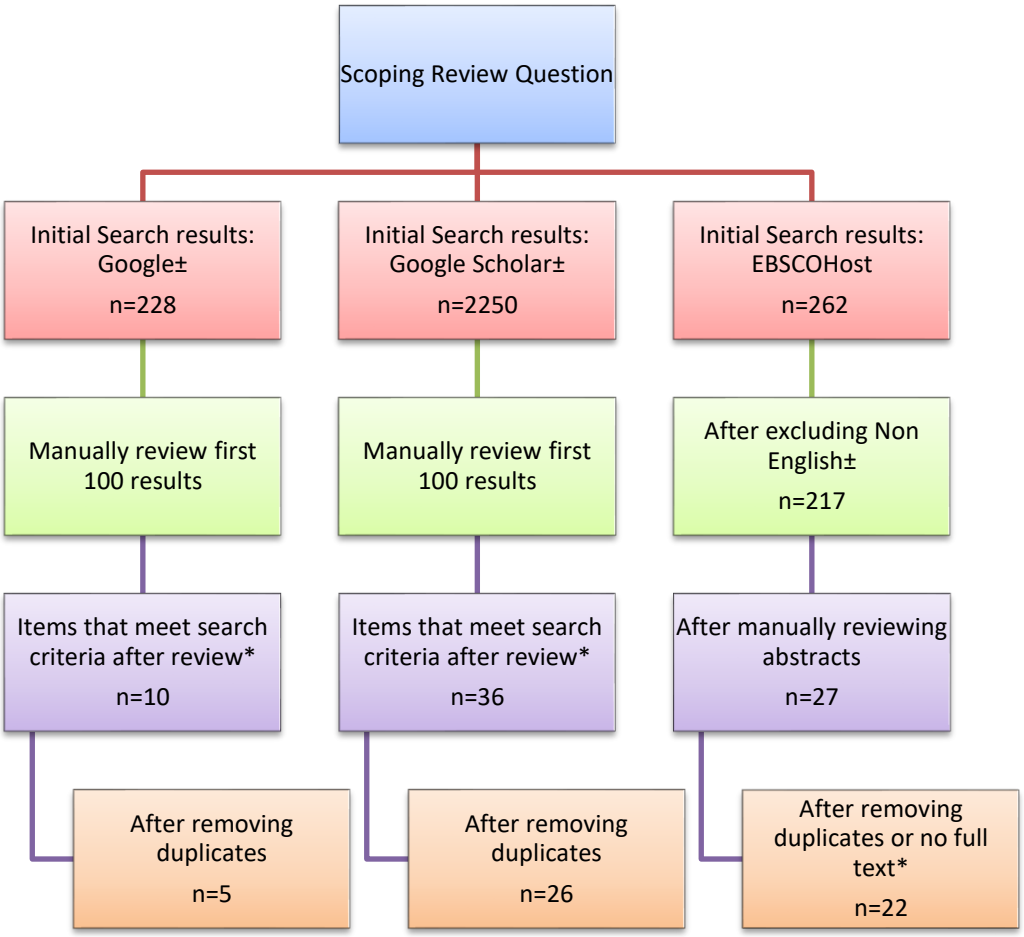

Figure 3.1: Search process by search tool

*Results without full text removed at this point ±Non-English results removed at this point.

The search was undertaken in early January 2019. As a result, items which were published or were entered into databases during 2019 were not available in this search.

Results

Through the three search processes, 53 results were found (Table 3.3).

Table 3.3: Search results by search tool.

EBSCO Host	Google Scholar	Google	TOTAL
22	26	5	**53**

The results were largely journal articles (n=40) followed by PhD Theses (n=5), book chapters (n=3), conference proceedings (n=3), and reports (n=2) (Figure 2).

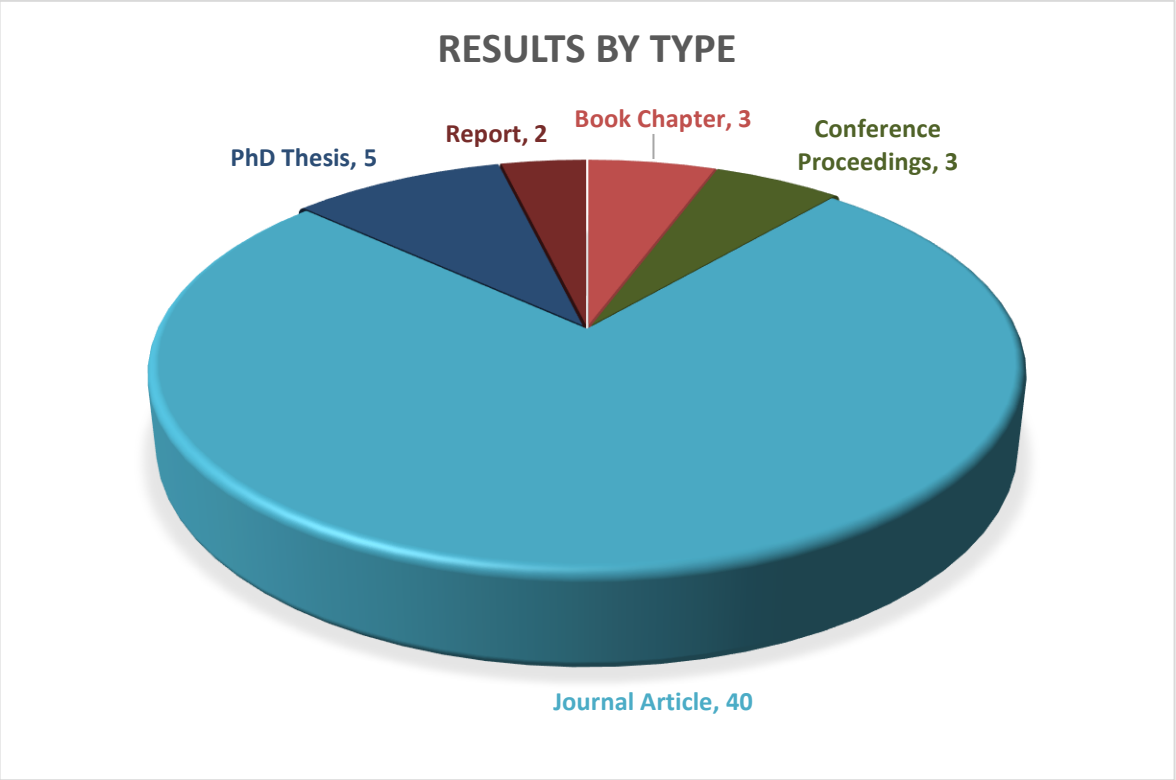

Figure 3.2: Results by publication type

It is noteworthy that within the discipline of paramedicine, discourse around professionalism and professionalisation is a relatively new phenomenon. This scoping search was not date-limited and no full text results were found prior to 2003, although a small number of citations without full text were noted back to 1999. In this sample, 77% of results (n=41) were published between 2012 and 2018 and the remaining 23% (n=12) were published prior to 2012 (Figure 3.3).

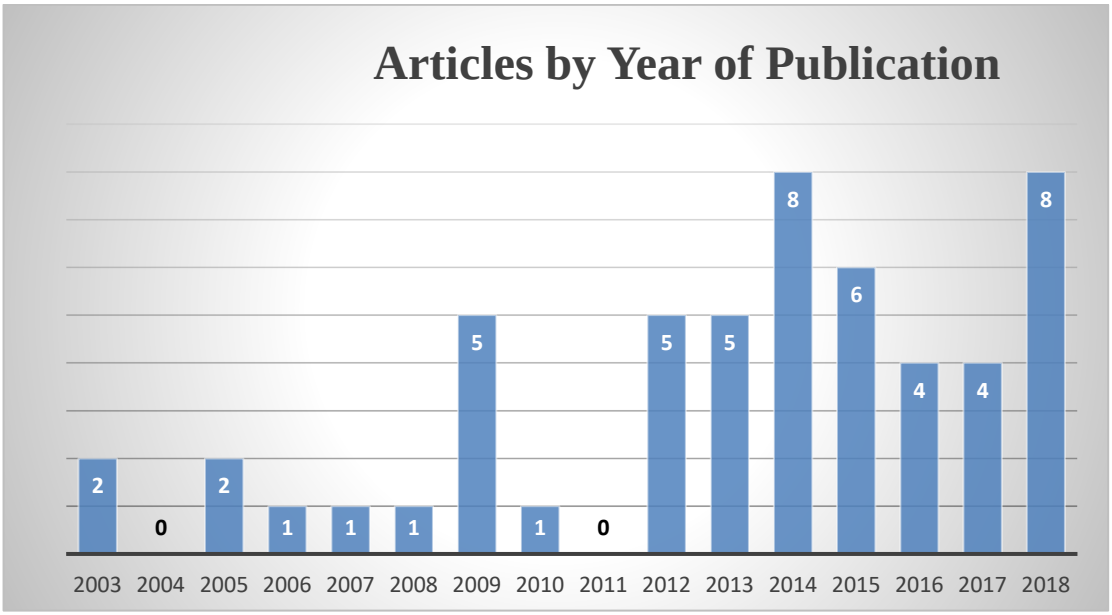

Figure 3.3: Articles by year of publication

Results were categorised thematically (Table 3.4.).

Table 3.4: Search results by theme

Theme	No.
Professionalisation of Paramedicine (including defining paramedicine as a profession and the development of the profession)	2
Professionalism of Paramedicine (including discussions of the development of professionalism and professional identity)	20
Roles of Paramedics (including discussion of paramedic roles in the community and the development of extended roles)	7
Regulation (including registration and professional regulation)	3

The Professionalisation of Paramedics

Like all professions, paramedicine has been engaged in a journey of professionalisation. This process has been poorly understood from a sociological point of view both generally and within the profession of paramedicine itself. Two PhD theses, by Margolis (2005) and Newton (2014) respectively, examine professionalisation in some depth. Margolis provides a comprehensive synthesis of the literature around the various models of conceptualising professionalisation with a focus on Eliot Freidson (2005). The author explores the use of tertiary education as an agent of

professionalisation but finds a lack of consensus amongst academics of both its role in professionalisation and the definition of profession. Newton explores the concept of the professionalisation of paramedics as an innovation given paramedicine is a fledgling profession. Like many innovations, paramedics are unsure of their place in their environment. In a similar vein to Margolis, Newton (2014) sees increasing education in the tertiary sector as a key element in the process of professionalisation and notes the lack of certainty around paramedic professional status. Newton's work looks into the future of paramedicine and addresses the emergence of a healthcare environment where disruption and the challenging of traditional models is common. In this environment, paramedics will need to be adaptable and creative. Newton considers how well paramedics are prepared for this environment of rapid change in the context of a profession often steeped in tradition and tied to a traditional means of production (Newton, 2014).

As well as these theses, several papers focus on the role of education in the professionalisation of paramedics. These explore the increasing "academisation" of paramedicine and the increasing role that education will play in legitimising the profession, creating the body of knowledge and forming the basis for future practice (Brooks et al., 2018; First et al., 2012; McEwen & Trede, 2014;). Tertiary education is now common in many countries such as Australia (Brooks et al., 2018) and the UK (Givati et al., 2017), and is emerging in the U.S. and Canada. In these jurisdictions, university education is being discussed as an enabling factor for paramedics and critical in recognising the unique body of knowledge and professional autonomy of paramedics (Caffrey et al., 2018; Knox & Batt, 2018).

The remaining papers discuss paramedic professionalisation from a theoretical perspective using trait theories, operating under a structuralist approach examining the current paramedic occupation and consider gaps in these lists of traits to suggest areas in which paramedics could increase their professionalism (First et al., 2012; Reynolds, 2004; Williams et al., 2010).

Authors exploring a trait-based approach look primarily to Greenwood's structuralist approach that outlines a checklist of traits which an occupation requires to be considered a profession (Greenwood, 1957). While these papers are limited in their discussion of professionalisation theory, it is important to note that they are amongst the first articles in this vein and represent an important early exploration of the question of paramedic professionalisation and the frameworks which may help the profession determine its status. Likewise, several recent papers discuss competency structures for paramedics with a view to developing a framework of competencies or domains for paramedics which will help ground both clinical and professional practice (AlShammari et al., 2018; Bowles et al., 2017).

McCann and colleagues undertook two ethnographic studies which examined the professionalisation of UK paramedics. These studies focus on education and change management, respectively. Within this work McCann explores the impact on "street level" paramedics, that is, front-line practitioners engaged in direct patient care, of change and professionalisation. Within this context they compare the change resulting from professionalisation in terms of its impact on the daily activities of paramedics and larger policy or organisational impacts (McCann et al., 2013, 2015).

Two Australian studies look at the readiness of paramedics and stakeholders in paramedic practice to embrace professionalisation (Murcot et al., 2014; Williams et al., 2015). The first examined the readiness of undergraduate students for professionalisation and found students to be strongly positioned to further professionalisation (Williams et al., 2015). The second examined the perceptions of community members who universally perceived paramedics to be part of a profession, despite substantial role confusion and variances in nomenclature around paramedics (Murcot et al., 2014). This confusion is further highlighted by Lyndon-James (2013) who discusses the importance of paramedics enhancing their accountability and education to meet public perceptions of their professionalism.

The impact of community perception and service to the community has on paramedic practice is highlighted in a number of papers. Tonkens, et al. (2013) indicated that paramedics sometimes report undertaking actions based on perceptions of what the community considers professional conduct rather than their own professional judgement. This creates a tension between external pressures from the community and its concept of what professionalism should look like, based on an increasingly transactional relationship with health professionals, and intrinsic concepts of professionalism and professional behaviours held by paramedics (Tonkens et al., 2013). Newton and Hodge (2012) link professionalisation to flexibility in service delivery, suggesting that paramedicine needs to grow as a profession and adapt to changing service requirements of the community. Innovation is seen in the context of both health outcomes and economics as indicators of health care effectiveness. Professionalisation of paramedics facilitates the attainment of these outcomes. Mahony (2003) considers the potential paths by which paramedics can consolidate their autonomy and develop their occupational identity through capitalising on their unique paradigm and environment of practice.

Paramedic Professionalism

Nine papers broadly look at the issue of paramedic professionalism and consider future development of the profession, principally in Australia, (First et al., 2012; James, 2013; Joyce et al., 2009; McDonell, 2009; O'Meara, 2009; Reynolds, 2004; Williams et al., 2009, 2010, 2012), Canada (Anderson, 2012; Bowles et al., 2017), Ireland (Knox & Batt, 2018), and the United Kingdom (Woollard, 2009; Newton & Hodge, 2012; van der Gaag & Donaghy, 2013). The complexity of professionalism is outlined by Burford et al. (2014) who explored professionalism through a range of approaches. The authors posit that professionalism can be based on individual values which predate joining a profession, through situational interactions between the professional and others and through social norms set by the community or the professional group. They suggest that professionalism is not so much a set of actions or outcomes as a capacity for situation-specific decision-making which is grounded in a normative set of values. This sentiment is echoed by van der Gaag and Donaghy (2013), who indicate that

only eight percent of the complaints managed by the regulatory body in the UK are based on clinical competency. The remainder are concerned, in various ways, with conduct-related issues suggesting that professionalism is a more significant area of risk to the profession than clinical skill. They further suggest that for professionalism to exist paramedics must believe that their work is unique, requiring it to be underpinned by a unique body of knowledge and educational processes.

Bowles (2009), Newton and Hodge (2012), and Knox, et. al. (2016) highlight the importance of education in building professionalism. The challenge of incorporating professionalism into curricula is discussed given the transient, situational and subjective nature of professionalism. It is noted that while foundational education lays the groundwork for core professional practice, continuing education is a significant driver in professionalisation (Knox et al., 2016). If viewed in the context of Burford et al (2014), professionalism is the capacity to make situational decisions based against a social and professional context. Thus, as that context changes, paramedics need to adapt to make appropriate situational judgements in an ever-changing context. Paramedics and paramedicine will need to grow professionally to stay relevant and adaptive. Trede (2009) further suggests that in a modern society, education is critical to exposing paramedicine students to the complexities of real-world practice, which helps support their development as a professional, and this will assist in their ability to adapt as professionals to real situations.

Regulation

Fitzgerald and Bange (2007) present one of the earliest discourses about regulation in the Australian context. Townsend explores the potential learnings from other jurisdictions, especially from the United Kingdom, for Australian and Irish Paramedics. Townsend (2017b) highlights recent work by the Health and Care Professions Council (HCPC) and the University of Surrey to better understand how paramedics interacted with and understood the regulatory

regime in the UK. These findings highlighted frustration with varying understanding of professionalism and a culture of fear with the regard to the regulator. It was suggested that this was influenced by the unique culture of paramedicine and historic factors around accountability and rapid rise of the profession (van der Gaag et al., 2017). Likewise, a study of paramedic reporting to the HCPC found higher levels of non-work-related incidents being self-reported to the regulator. These were often incidents resulting from risk taking behaviour and might be influenced by cultural factors such as punishment of breaches and low rates of performance feedback and coaching (van der Gaag et al., 2018).

The Role of Paramedics

The expanding role of paramedics is examined in a report and journal article by O'Meara et al (2006, 2012). Both explore the movement of paramedics into new occupational roles to provide a broader range of professional engagement with the health sector. These papers highlight the expanding roles of paramedics, which helps to emphasize the evolution of the profession. O'Meara et al (2006) explore the development of the paramedic as a more holistic health provider, primarily in a rural context. This work discusses frameworks to utilise the growing capacity of paramedics to address inequities in rural health service provision and thus develop a health professional with both a broader scope and function. Examples of these models are described to support the diversity of roles and health service delivery outcomes of such approaches (O'Meara et al., 2012).

Four papers from Wankhade et al. explore professional culture in paramedic organisations often in their response to change (Wankhade, 2010, 2016; Wankhade & Brinkman, 2014; Wankhade et al., 2015). They identify several professional sub-cultures within paramedic organisations and discusses the dynamic between them in terms of change management and explore the response of paramedics to change around professionalisation and changing roles. The authors suggest that one of the unique challenges of paramedicine in its current period of evolution is that many

longer-serving practitioners have had a profession form around them rather than intentionally joining a profession at the outset of their careers (Wankhade, 2010, 2016; Wankhade & Brinkman, 2014; Wankhade et al., 2015). While it is critical that paramedics continue to professionalise to ensure they are adaptive to an ever-changing workload and health care demands (Newton & Hodge, 2012), the response of practitioners to this change can be varied based on their individual worldview of their profession's role. Paramedicine has long struggled with a dual identity in health and public safety.

Discussion

Evaluating Paramedicine as a Profession

Determining if an occupation is a profession is not a process with clear boundaries. The variety of theoretical perspectives on professions provide different views of an occupation's status based on different constructs and characteristics. Varying views of professions allow for multiple contexts such as autonomy, economic power, political power and status. Of the available literature, only the structuralist approach, relying on lists of traits and characteristics rather than other constructs of professions, has been applied to paramedicine. Functionalist models, e.g. Carr-Saunders' (1933) view that a profession was defined by its function in society, monopolist models, where professions exist through entrenched exclusivity, (Larson, 1980), and culturalist models, where professions are defined by a sense of community of practice beyond simple control of the means of production, have not been investigated within the reviewed literature although McIntyre (2003) discusses the role of control of technology as a means of paramedics controlling their work. Aside from the work of Margolis (2005) and mentions in Townsend (2017a) and van der Gaag and Donaghy (2013), the impact of other key theorists on professionalism such as Freidson have not been extensively explored (Freidson, 1994, 2001). More contemporary approaches are absent (Evetts, 2011). Professionalisation of paramedics is further complicated by the various iterations of the profession existing in different geographic, historical and cultural contexts (Dick, 2003). Even amongst jurisdictions operating within the

Anglo-American model, the dominant service-delivery paradigm for most English-speaking countries, there is a range of education standards, funding and governance models and community expectations (O'Meara et al., 2018).

Paramedics and Professionalism

While there has been attention to socialisation and perceptions of students (Burford et al., 2014; Williams et al., 2015), and one paper on external views of paramedics (Murcot et al., 2014), there has been limited consideration of how paramedics navigate professionalism. Works by Devenish et al (2014, 2015, 2016) explore how new practitioners transition into professional roles and the challenges they face balancing culture and professional values. Margolis (2005) identifies some unexpected confusion amongst academic leaders which suggests clinicians themselves may not have a clear view of the process or framework of professionalisation. This view is supported by Burford et al (2014). The lack of consensus highlights the challenge of defining professionalism in a nascent profession as well as the complexities of education providers producing new entrants to the profession with varying understanding of professional practice. This bears out the observations found in Townsend's (2017b) review of the 2017 report on HCPC paramedic complaints. Givati, Markham and Street (2017) note that a tension exists between emerging concepts of professionalism developed from within the profession, often espoused by academics, and organisational/managerial concepts of professionalism. This clash of discourses pitches a traditional organisational set of standards and practices against more nascent concepts of value-based professionalism. At a local level, it represents a pragmatic conflict between practitioners who rely exclusively on organisational and cultural norms and newer practitioners who emerge with a more constructed view of professionalism from their education.

Roles and Evolution

Newton (2014) and O'Meara et al (2006) explore the potential of paramedics to engage more fully as a newer player in the health care professions. A number of papers consider expanded roles for paramedics and see this expansion as both a de facto indication of professional evolution and as a more tangible driver for professionalisation (Acker, et al., 2014; O'Meara et al., 2006; O'Meara et al., 2012). Likewise, the impact of change and evolution on a workforce, which has been historically grounded in structure and hierarchy, creates tensions with a natural professional evolutionary process driven by modernisation, innovation and changing service delivery requirements (Newton & Harris, 2015; Wankhade, 2010, 2016; Wankhade & Brinkman, 2014).

Future Direction

As paramedicine moves into a regulated environment in Australia and continues to evolve as a health profession in other jurisdictions, issues of professionalism will continue to be of importance as self-regulation relies on established professional norms, values and behaviours. Likewise, the development of the profession is not a single direction journey on the professionalism continuum. Paramedicine, like any other profession, risks the possibility of de-professionalisation if the profession loses its control of its social mandate or means of production through failure to maintain professional standards or failure to maintain its social contract with the society it services (Randall & Kindiak, 2008; Tonkens et al., 2013). It is clear that as paramedics increasingly operate in an environment of higher accountability, a clear understanding of professionalism will be critical to navigating an increasingly changing and complex world and educating emerging practitioners. Scholarship continues to grow in the area of paramedic professionalisation. Several publications have become available outside of the time frame of the scoping review including a PhD Thesis by Townsend, which address a number of the elements discussed as gaps in this scoping review (McCann & Granter, 2019; Reed, 2019; Townsend, 2017a; Townsend & Luck, 2019).

Conclusion

Professionalisation and professionalism have been rarely studied with reference to paramedicine. It is critical to understand the process of professionalisation and consider how paramedicine fits into the theoretical frameworks of professionalisation. Much work on professionalisation in paramedicine has come from academics within the profession and focused on finding a paramedic professional identity or defining status of paramedics within the occupational evolutionary process. Paramedicine could benefit from application of much of the work being undertaken in sociology to understand more fully the nature of professions and how professions interact with societies.

On a more pragmatic level, professionalism underpins regulatory standards which shape a profession as well as providing a key element in professional identity. Equally, professional standards shape public perception of a profession and help shape public expectations. As such, it is crucial that there is a shared understanding of professionalism. Continued discourse on these two important elements of the profession are critical for further evolution of paramedicine and to help shape the trajectory of both its occupational development and professional practice.
It is unclear if professionalisation drives expansion of the profession or vice-versa, or whether the development of both is symbiotic. What is clear is that paramedicine is beginning to occupy a new place within the health care spectrum with expanding scope and increasing complexity and accountability within its practice. In Australia and many other jurisdictions, the regulation of paramedics as a registered health profession provides both a mechanism for ensuring standards and an opportunity for paramedicine to examine how it engages with the communities that paramedics serve, especially in an ever-changing world where health services increasingly rely on disruptive innovation rather than tradition.

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Chapter 4: PhD Journey

The Push for Regulation of Australian Paramedics – Initial Views

The push for regulation of Australian paramedics began at the turn of the 21st century (Boyle et al., 2003; FitzGerald & Bange, 2007; Gibson & Brightwell, 2006). The process of growth of the profession and entry into regulation is outlined in the introduction to this thesis. In examining frameworks such as Greenwood's (1957) attribute theory, some within paramedicine believed that regulation was the primary missing element for Australian paramedicine to reach a professional status (Murcot et al., 2014; Reynolds, 2004; Williams et al., 2010). By the 2010s elements of professionalisation were in place. Tertiary education was well established as the pre-employment training standard (Makrides et al., 2022; O'Brien et al., 2014). The paramedicine body of knowledge was growing as evidenced by increasing publication from paramedic authors (Figure. 4.1) (Beovich et al., 2021). All indications are that this trajectory in paramedic knowledge production will continue.

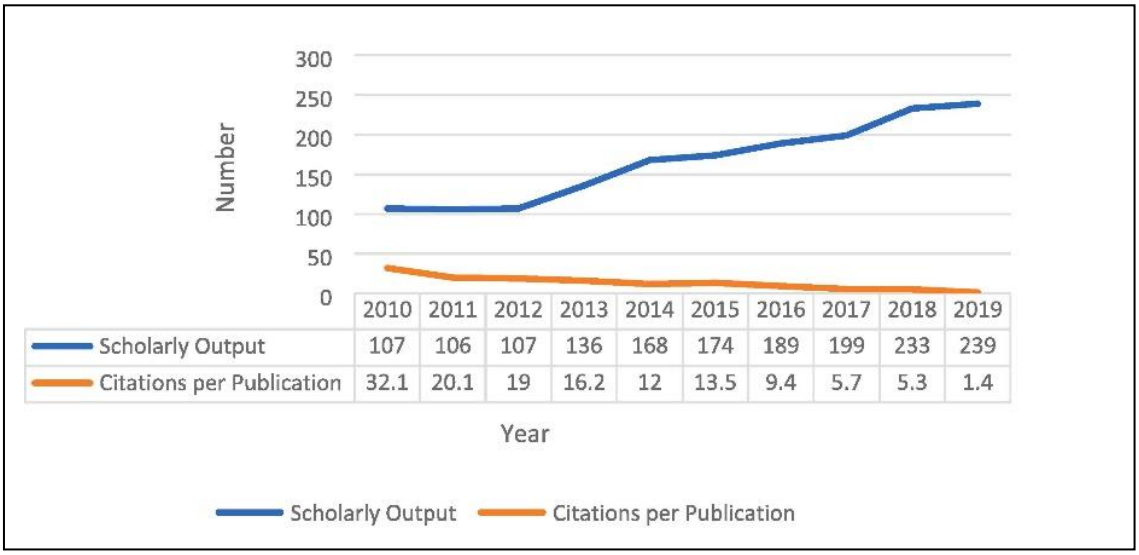

Figure 4.1: Number of articles published per year and citations per publication per year

In the Australian context, regulation and professionalisation were inextricably interlinked. Discourse by both the professional bodies and thought leaders viewed regulation as a significant goal for the profession (Paramedics Australasia, 2012b). Regulation was seen as a gateway to professionalisation. This is perhaps because, unlike other elements of professionalisation, it is tangible goal with clear definition. A profession is essentially either self-regulated or not (Brydges et al., 2022). It was also an element which was easily comparable to other professions, especially in the Australian context where health professions operated within the same national regulatory framework (Bennett et al., 2018).

As early discourse around regulation advanced an important part of the conversation was about how paramedicine would know if it was a profession (Williams et al., 2010). The early examination using trait theories was alluring given the more structured nature of those frameworks. This is natural when a profession is beginning to reflect on itself and examine its identity. This chapter considers some of the early ideas around paramedic professionalisation in Australia, presents some parallels from other professions and recounts the initial attempt by this author to explore regulation with an Australian lens.

Trait Theories and the Cautionary Tale of Social Work

Social Work and Professionalisation

One of the challenges in discussing the professionalisation of an occupational group is recognising that each discipline's journey of professionalisation is unique, coloured by social and cultural factors, politics, history and even the class and gender of the participants. One profession which may be examined in parallel with paramedicine is social work. The journey of social work is historically different to paramedicine but the profession and its professionalisation process have elements of commonality worth exploring.

Social work emerged at a similar time to paramedicine in the last two decades of the 19th century, although it initially experienced a more rapid process of professionalisation. Prior to the advent of social work, care of the poor and underprivileged fell to volunteer "visitors".These volunteers were replaced increasingly at the end of the 19th century with paid case workers, much as nascent ambulance services at this time were also beginning to engage paid employees. Discipline-specific social work education, however, would emerge at the turn of the century, while ambulance training did not begin in Australia until the 1960s, paramedic training until the 1970s and university-based paramedic education until the 1990s (Makrides et al., 2022). As social work entered the 20th century, it had dedicated courses of education, an increasing theory of practice and an increasingly organised cohort of practitioners.

Social work had many of the requisite elements for professionalisation, at least by the standards of trait theorists. Social work, however, needed guidance given the study of professions was all but absent. At this time Durkheim and Weber were only beginning to consider sociology of professions in the first decade of the 20th century and it would still be decades until the works of professionalisation pioneers such as Carr-Saunders and Parsons (Carr-Saunders, 1933; Collyer et al., 2015; Parsons, 1939). For an assessment of their professional status, social work turned to Abraham Flexner.

Enter Abraham Flexner

Flexner was arguably the greatest authority on professional education in the first two decades of the 20th century (Austin, 1983). An educator, he completed the Flexner Report into American medical education in 1910, recommending sweeping changes to medical schools across the country to increase standardisation, improve curricula and strengthen medical regulation (Borkan et al., 2021). While there were deficiencies in Flexner's report and included social, gender and racial biases common at the time (Bailey, 2017), the report was a watershed in medical education and professionalisation in the US. It brought US medical schools more in line with their more formal and structured European counterparts (Austin, 1983).

For this reason, Flexner seemed a well-qualified choice to address the national conference of social workers in 1915 (Flexner, 2001). Flexner, while recognising he was not deeply familiar with social work, proclaimed that social work was not a profession, although it was a useful and socially valuable activity (Austin, 1983). Flexner offered six criteria for a profession, one of the earliest sets of trait theory:

1. Professions involve essentially intellectual operations with large individual responsibility.
2. Professions derive their raw material from science and learning.
3. Professions use the material they develop to a practical and defined end.
4. Professions possess an educationally communicable technique.
5. Professions have a propensity towards self-organization.
6. Professions are becoming increasingly altruistic in motivation (Flexner, 2001).

Flexner essentially considered that social work lacked the scientific rigour of a discipline like medicine and thus did not meet the criteria to be considered a profession. These traits were an early iteration of professional trait theories such as those from Wilensky, Weber and Greenwood which appear in middle of the 20th century.

It is notable that Flexner set a high standard. In this same address he declared that neither pharmacy nor nursing were professions. Flexner's logic was that while their work was important, it was not intellectually independent of medicine and, in that sense, subordinate to medicine. In Flexner's view, these practitioners simply expressed the intellectual will of physicians, albeit in a highly technical way, and were dependent on orders from physicians to function. In this way they did not meet Flexner's criteria for a profession. Flexner not only outlines a trait theory but utilises an idea type, commonly associated with Weber (Willis, 1989). For Flexner, medicine represented primacy in the intellectual endeavours around human wellness and as such, was used as the benchmark to which other professions were compared (Austin, 1983).

While we may think of regulation as a relatively mundane, bureaucratic activity, like any function which limits power or set standards it is influenced by political and cultural elements of the time. Some scholars note that many of the professions which were not considered professional for the bulk of the 20th century were those who were primarily occupied by women, such as social work, teaching, and librarianship, despite their formal training and intellectual capital (Goode, 1969) or were regulated, such as nursing and midwifery, as a form of occupational control (Willis, 1983).

The Reaction of Social Work

Social work largely accepted the view of Flexner (2001) on its professional status. While it was clear that social work met some of Flexner's criteria, other criteria were not. While many in social work disputed Flexner's assessment, the primary body of social workers and social work scholars became engaged in an existential quest for the illusive traits which would allow social work to tick all the professional 'boxes' to gain the status it desired. This occupied social work for several decades (Austin, 1983). In fact, much of the trait-based theory work, such as that of Greenwood (among the most referenced thinkers on professionalisation in the discourse of paramedic professionalisation), Wilensky and Goode comes from the discipline of social work in the middle of the 20th century. Social work spent a significant amount of time and effort over the prevailing years with the ghost of Flexner looming over their profession, wondering when they would finally meet the list of requirements to be let into the exclusive club of 'real' professions. There was significant reflection in social work: Are all social workers professionals? Are just some professionals? What is the threshold? (Tosone, 2016). Social work scholars have contemplated if this now century-long yearning for professional recognition has left social work to pass professionalisation by and enter a period of deprofessionalisation (Randall & Kindiak, 2008).

The Limitations of Trait Theories

Trait theories can be seen as an attempt to reverse-engineer a definition of a profession based on an ideal type, an early concept of both Durkheim and Weber (Freidson, 2001). Flexner was a strong proponent of an ideal type, and saw medicine as that archetypal profession (Austin, 1983). Paramedicine also relied on trait theories early in its discussion around professionalisation (First et al., 2012; Reynolds, 2004; Williams et al., 2010). Trait theories have appeal as they are tangible, definable in many instances and rely on measurable criteria. Trait theories, however, have drawbacks and they rarely have firm agreement on the list of criteria between different trait theories. While attempts have been made to build standardised tools for measuring professionalisation, these have largely failed to gain empirical value. Finally, trait theories fail to consider the unique nature of different professions, for example, health professions vs engineering, nor the cultural elements that underpin the society position of professions (Suddaby & Muzio, 2015).

Lessons for Paramedicine

One may ask why paramedicine did not attempt to gain professional recognition until nearly 100 years after social work? While this has not been explored, one can posit some theories. Ambulance work was clearly defined, and while unpredictable in the day-to-day nature of operational caseload, it was highly predictable in the tasks which were undertaken. While there is greater breadth and depth in paramedic practice now, it was relatively static for a significant part of its history. Likewise, ambulance work did not entirely evolve organically. It was modelled on military systems where stretcher bearers were important, but subservient, functionaries who existed to support the needs of other professionals, predominantly doctors and nurses, who in the military context, even to this day, are commissioned officers while medics are almost exclusively enlisted ranks (Williams et al., 2009). Socially, ambulance work was a trade which recruited blue collar manual workers who, perhaps, for a range of reasons of class and culture, were unable or uninterested in advancing a professional agenda until after the reforms of the 1970s were well embedded in the occupation (Newton & Hodge, 2012).

Paramedicine shares the challenges of social work and has similar issues with trait theories. First, modern paramedicine, like social work, is an adaptive, problem-solving profession which increasingly had practitioners performing a wide range of roles for a wider range of reasons. Second, the discipline of paramedicine could be argued to broadly encompass a range of paraprofessionals who perform similar work: Emergency Medical Technicians, Rescue Technicians, Community Ambulance Officers, Emergency Response Officers. There is a myriad of titles for those who provide some form of acute unscheduled care at various clinical levels (Bowles et al., 2017; Shah, 2006). If a person in a rural country area calls the local emergency number and is attended in an ambulance by two trained volunteers who perform emergency care and provide a range of health care interventions, are those people not professionals? They have professional training, they are engaging in the discipline of paramedicine, they are often making decisions independently, and they have the sanction of the community to do it. This parallels the dilemma in social work where a clinical social worker with a master's degree and a diploma-qualified youth worker are both engaged in the practice of social work. Likewise, different countries may have developed different elements of the professional traits. For example, paramedics in the US and Canada are not routinely trained in a university degree program, however, may have other elements such as self-regulation and a body of knowledge (Tavares et al., 2021). One questions whether that excludes US and Canadian paramedics from being professionals yet elevates Australian paramedics based on a single criterium. Finally, since most trait theories were developed between 60 and 80 years ago, the structure of professions in society has changed markedly. This means the social structure around professionals and occupations have also changed significantly and the role professionals play in society may have equally changed.

Looking for Answers in Canada – An Exploration of Canadian Paramedic Identity and the Impact of Self-regulation

Introduction

The first planned study in this PhD project was to explore the experiences and identities of paramedics in already self-regulated environments. One of the challenges entering this PhD project was that there is a paucity of research around paramedic identity and the impact of self-regulation on paramedics. This study was undertaken in 2017, approximately a year and a half before regulation was implemented in Australia.

Canadian paramedics were chosen for this study for two key reasons: First, Canadian paramedics are like Australian paramedics in their occupational culture. Most work for government or quasi-government agencies in an analogous way to the work environment of Australian paramedics. Second, at the time of the study, self-regulation existed in four Canadian jurisdictions and had been implemented over a period from 1993 to 2017. This means that unlike the paramedic population of the UK or Ireland, who have been registered for nearly two decades, there are a combination of practitioners who have operated only in a self-regulated environment and those who have undertaken a transition from other forms of regulation to a professional registration/self-regulation model. This will provide insight into the transition and give the opportunity to ask those professionals about the transition experience. The two key jurisdictions where interviews and focus groups occurred have single province-wide agencies which deliver services in a way analogous to how paramedic services are provided in Australian jurisdictions.

The results of this Canadian study were significantly different than expected and highlighted the risk of researcher bias in study design. This study was useful but did not form a critical part of the study outcomes. The decision was made not to publish this study but use it as a key learning in the experience. In the PhD journey However, this study did inform the direction of the thesis and was useful for repositioning and contextualising the thesis topic.

Methods

This study relied on interviews and focus groups as qualitative data collection tools. Interviews and focus groups were recorded, and field notes taken. Recordings were then transcribed for analysis. Inclusion criteria were:

- They are a registered paramedic in a jurisdiction with self-regulation of paramedics OR they are engaged as a regulator in one of those jurisdictions. Both regulators interviewed in the study also happened to be registered paramedics.
- They have been practicing for more than 12 months as a registered paramedic to ensure they have had time to develop a sense of identity.

In Canada, the following data collection was undertaken (Table 4.1.)

Table 4.1: Canadian study participant groups

Group	Location	Participants
Focus Group CB 1	Alberta	4 (3 female, 1 male)
Focus Group CB 2	Alberta	4 (4 female)
Focus Group CB 3	Alberta	3 (3 male)
Focus Group CB 4	Alberta	6 (2 female, 4 male)
Focus Group DB 1	Nova Scotia	5 (1 female, 4 male)
Focus Group DB 2	Nova Scotia	3 (1 female, 2 male)

Four interviews were undertaken. This includes a female participant from Alberta and three male participants in Nova Scotia. The study received ethics approval from the University of Wollongong Human Research Ethics Committee (2017/175). Demographic profiles are shown in Table 4.2.

Results

Table 4.2: Canadian qualitative study demographics.

		No	%
Jurisdiction	Alberta	19	65%
	Saskatchewan	2	7%
	New Brunswick	2	7%
	Nova Scotia	6	21%
Years of Service	1-5	1	3%
	6-10	6	21%
	11-15	4	14%
	15 +	18	62%
Role	Clinician	13	45%
	Educator	3	10%
	Manager	11	38%
	Regulator	2	7%

Overwhelmingly, every participant indicated that they did not routinely consider self-regulation as part of their paramedic identity. Most participants considered it like an insurance policy, that is, they paid their money each year and registration happened in the background. When asked about their identity, most participants in the focus groups reported their identity was most influenced by their employment, their links to their individual communities and the types of activities they undertook as paramedics. There was a slight difference in views between jurisdictions who had been regulated for some time, for example,, Alberta and New Brunswick, and those who had more recently implemented self-regulation, Nova Scotia and Saskatchewan. Areas that had been regulated for longer had less general awareness of regulation in their day-to-day practice. They had accepted it as simply a reality of practice and was just an administrative part of the career. Newer jurisdictions seemed excited about regulation but did not seem to fully understand its function or operation.

Discussion

This study highlighted that regulation, when operating properly, should be a constant but somewhat invisible safety net rather than a central source of identity. This study also highlights the importance of bracketing. In this instance the expectations of the study outcomes were significantly different to those encountered. This was largely because the discourse about

regulation in Australia as an aspirational goal was centre to our narrative about professionalisation. It became clear through the results that regulation was a part of a larger jigsaw puzzle of professionalisation. In fact, Canadian participants seemed generally unconcerned with being regulated but spoke highly about Australia's transition to tertiary education, one of Canada's aspirational goals.

Impact of this Study on the PhD

As mentioned, this study was not published nor included as a key research activity of the thesis, however it was felt worthy of mention. The description of the study in this section of the thesis which provides context and background to the larger research questions. This study allowed the researchers, primarily the PhD candidate, to significantly reflect on the purpose and context of the thesis significantly. While the candidate recognises his support of and advocacy of regulation, this experience was critical in contextualising the role of regulation and reinforced that regulation is primarily a functional element of the operation a profession. Regulation is a framework built around a profession to create limits to its power and privilege. This was most notably seen in the 19th century with medicine as the profession having existed for centuries unchecked in terms of its power and influence (Raach, 1944; Willis, 1983). Likewise, there was little regulating the profession in terms of its ethical conduct (Roberts, 2009). As a result, limits were placed on the activities that were able to be undertaken and the accountability of practitioners increased. Regulation is a function critical to maintaining the trust of the community in a profession by ensuring the public knows that the power and status they invest in a profession will be used in a safe and ethical way (Reed, 2019). The view of regulation found in the Canadian study likens regulation to guardrails on a bridge. You are largely unaware of their presence although you know they exist. You will rarely, if ever, encounter them but when required they are critical for your safety. The aspirational nature of regulation as a trait to acquire on the Australian profession's list of professional characteristics in some ways biased the perspective of regulation's true purpose.

This study informed the development of the pre-registration survey and the post-registration survey by helping to give context around the discourse regarding regulation. It was also key in helping ensure the tone of questions were appropriate and the expectations of the surveys were bracketed. Finally, the study provided insight into the operation of paramedic professional identity and the elements which helped construct it.

Researcher Positionality on Paramedic Regulation

The researcher in this project is a paramedic practicing in Australia with an involvement in the campaign for the introduction of regulation through the professional body for paramedicine. It is important to consider the positionality of the researcher in the context of the research project. Traditional views of the research of phenomena require the researcher to fully bracket or separate their personal worldview from the research. Husserl would suggest the use of Epoché, that is a phenomenon should be explained entirely from the first person as it is experienced (Reiners, 2012). In this case, while the researcher is experiencing and engaged in regulation, and being regulated himself, the principal purpose of this research project is the report on the experience of others. Husserl does recognise a concept known as "intersubjectivity" where the researcher and the subject share the experience. His student Heidegger takes this a step farther and considers intersubjectivity advantageous (Reiners, 2012). Within this project, the use of the of the double hermeneutic is employed, that is, recognising that the researcher reports on experiences of the subjects reporting of their experience of the phenomenon (Smith et al., 2009). This approach, associated with Heidegger, is critical for the researcher interpreting the phenomena through both the reports of subjects and their own worldview. For Heidegger, it is impossible to separate the experience and world view of the researcher from others and thus full bracketing, especially in relationship to interpretation of the phenomena, is not possible (Heidegger, 1962; Reiners, 2012).

In this sense, the researcher in this project entered the PhD process with their own worldview and set of beliefs about regulation. However, through the process of the research and the intersubjectivity with the reports of the subjects, this is both coloured by the views of the researcher AND impacts and influences the views of the researcher. The case of the research study examining the views of Canadian paramedics is an excellent example of where the discovery of diverse worldviews on regulation prompts reflexivity in the researcher.

Regulation as a Professional Experience

This chapter has highlighted some of the influences on the PhD project and the context in which it was undertaken. The project began with regulation being seen as the centrepiece of professionalisation and as part of the trait theory list of required components. The result of the early journey of the PhD allowed a clearer vision of regulation. That is that regulation is largely a result of organic professionalisation (Freidson, 1983). While it is a driver of professionalism, in the sense that it codifies expectations of members of the profession, it more appropriately is a surrogate indication that a profession has reached a level of autonomy that requires regulation as a safeguard. Later thinking in the PhD project centred around the interaction of paramedics and regulation and that regulation was not a fixed entity, understood the same by everyone who encountered it.

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SECTION II

STUDY 1 - ESTABLISHING THE BASELINE FOR PARAMEDIC PERCEPTIONS OF REGULATION

"Every person who has mastered a profession is a sceptic concerning it."

George Bernard Shaw

Chapter 5: Introduction to the Pre-Registration Survey

Background

Following nearly a decade of lobbying and several scoping reports, the CHC announced in 2015 that paramedicine would be included in the NRAS. This decision was operationalised in April 2016 to begin the process of implementing the regulatory arrangements with a view to bringing paramedics into the regulatory framework in late 2018 (Paramedics Australasia, 2016). The Paramedicine Board of Australia was appointed in 2017 and applications for registration opened in mid-2018. Participation day arrived on December 1, 2018, at which point the regulation of paramedics was operationalised (Paramedicine Board of Australia, 2019a).

Purpose of the Study

The primary purpose of this PhD project is to establish the impact of regulation on identity and professionalisation. This study aims to create a point-in-time baseline of data which will be used to reference future changes in the impact of regulation both during and after this PhD project. There have been few studies exploring prospective change in a profession with reference to the implementation of a regulatory scheme. This is primarily because most regulatory schemes applied to unregulated health professions were implemented prior to the study of professions becoming a significant academic concern.

The study also sought to establish a more objective conceptualisation of the views and opinions of regulation in the Australian context. Paramedics are historically change-adverse or at best change-anxious (McCann & Granter, 2019; Wankhade, 2016). A move to national-level professional regulation created significant discourse within the profession, especially as few practitioners had experience of regulation or had operated in a regulated system. Wankhade (2012) suggests that paramedics view the impact of change at a local level, and the amount of speculation about how the working and practicing lives of paramedics was significant.

Overall Study Methodology and Design

The survey tool used in this study was designed to obtain both quantitative and qualitative data to be analysed separately. While the two components were approached with separate underpinning methodologies, especially in analysis, there was a commonality between them in that they were examining the same issue with the same population. While surveys are more commonly developed in a positivist or post-positivist paradigm (Groves et al., 2009), the entire survey operated under a constructivist approach as it was not measuring objective facts but rather perceptions and expectations (Keaton & Bodie, 2011). The views of regulation of each participant, especially in this survey, were predicated on a complex interplay of factors. These included personal views of control of work, influences from workplace culture and the views of colleagues, influences from media, and personal speculation about a construct they are unfamiliar with. Wankhade (2012) outlines how operational paramedics tend to view issues in terms of their local and personal impact rather than as broad system or professional impacts, and so these views are critical in measuring the impact of regulation on individual practitioners.

The mixed methods approach of this study allows for both quantitative data with the nuanced depth of qualitative data. The use of mixed methods in paramedicine is growing as we increasingly research complex problems with multiple dimensions (McManamny et al., 2015). This is especially so with this study as we are seeking to both understand the views of the profession as a large population and explore the reasons which underpin these views for individuals.

Research into paramedic culture is reliant on the study of language (Burford et al., 2014; Charman, 2013; Furness et al., 2021; Lazarsfeld-Jensen, 2014; Palmer & Gonsoulin, 1990). Similar toother professions, paramedicine has an occupational language or “cant”, which is unique to members of the profession. While the occupational language varies geographically, all paramedics engage in this practice to some extent. For this reason, the qualitative element of

this study relied on a hermeneutic analysis of the data to not only determine what paramedics said but how they said it (Laverty, 2003). Equally, the language of questions in both the quantitative and qualitative components needed to match the language of the participants to ensure effective engagement. This was achieved by both designing the survey from a paramedic perspective and testing the survey deployment on a convenience sample of paramedics with the specific aim of measuring survey usability and understandability.

The study was deployed in the month leading up to participation day. The rationale for this time frame was to ensure that paramedics had the maximum amount of information on which to form an opinion without having directly experienced the regulatory framework itself. A minority of practitioners indicated that registration application had been accepted at the time of the survey, the majority had not, so this gave a good sense of the experience of waiting for a new regulatory framework to commence.

Study Results

The two publications from this study outline the results for the quantitative and qualitative data respectively and the associated analyses. It is important to note that while these are two separate publications they should be read in conjunction as they explore different elements of the same subject. While both studies rely on the same set of survey data, specific analysis of individual data comparing quantitative and qualitative results has not been specifically undertaken. There is sufficient description in the qualitative data that the broad groups identified in the quantitative data analysis can be identified in the qualitative responses.

Summary

The first survey sets the benchmark for future exploration of paramedicine, especially around regulation and identity. This study also had utility in exploring the demographics of the profession as prior to regulation there were few sources of demographic data on the paramedicine workforce. The two analyses give an overview of the nature of the views of paramedics immediately prior to participation day while the regulator was still intangible and had not yet directly impacted their practice.

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Chapter 6: Perceptions and Knowledge of Self-Regulation of Paramedics in Australia

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This article reports the quantitative results from the 2018 (Pre-registration) Perceptions of Registration survey.

Abstract

Background

Since 2018, paramedics in Australia have been self-regulated under the National Registration and Accreditation Scheme (NRAS) for health practitioners. While paramedics and other health practitioners are self-regulated in many jurisdictions internationally, there has been little study of the impact on practitioners of the introduction of new regulatory frameworks.

Method

Paramedics undertook a survey in the month leading up to the commencement of self-regulation collecting both qualitative and quantitative data. The survey was completed by 419 participants. This paper explores the analysis of quantitative data. Key results were cross tabulated with demographic factors.

Results

Participants indicated they had good broad knowledge of the regulatory scheme but were less confident on more detailed aspects. Most believed that patient safety and practitioner

accountability will improve with registration; however results were less clear on changes in scope, remuneration or employment opportunities. Questions on identity indicated that the primary factors in paramedic identity construction were employment status, qualifications, and scope with impending registration the least important factor. Overall, 59% of participants supported self-regulation, however 25% indicated they held negative views. When cross-tabulated with demographics, years of service and initial qualification (vocational vs university) showed relationships with support for regulation.

Discussion

The introduction of self-regulation represents significant change to both the governance of paramedics and entry to the profession. Uncertainty by some is indicative of the unique nature and impact of the change. However, there is wide agreement that the scheme will increase public safety and accountability which are the key aims of professional regulation.

Introduction

As paramedicine matures as a health profession, greater regulatory control has been applied to help ensure the safety of the public. Internationally, an increasing number of jurisdictions are adopting self-regulatory frameworks for paramedicine. Likewise, in non-self-regulated jurisdictions, licensing schemes are often used to provide accountability for practice or proof of qualification and currency. In 2018, paramedicine became the 15th profession to be regulated under Australia's National Registration and Accreditation Scheme for health practitioners (NRAS) (Gough, 2018; Moritz, 2018). Prior to the NRAS, paramedics and their predecessors operated as essentially unregulated health professionals (save ambulance services legislation or internal organisational governance) for over a century. The inclusion of paramedics in the NRAS represents a significant change in the regulation and governance of the profession. This paper explores the impact on paramedics from this development through data from a 2018 survey of paramedic perceptions of regulation undertaken in the month prior to "participation day," that is, the day paramedic regulation commenced. The paper analyses the results of the quantitative elements of the survey.

The purpose of regulation and the impact on practitioners

While it is largely accepted that the principal aim of professional regulation is the protection of the public, there is some debate over the mechanism by which self-regulation achieves this (Waring, 2007). Regulatory schemes, such as the NRAS, provide a formal mechanism to determine entry to a profession, establish boundaries of professional behaviour and provide mechanisms to remedy a range of practitioner-related issues which potentially impact public safety (Freidson, 1983; Irvine, 2016; Knox & Batt, 2018). Although the mechanisms and functions of registration are well documented, less explored is the impact of regulation on practitioners and their experience of navigating the implementation of new regulatory frameworks. Equally, the concept of regulation, especially in reference to new professions, is often perceived as the imposition of additional layers of bureaucracy (Bennett et al., 2018). The

World Health Organisation (WHO) Regional Office for the Eastern Mediterranean (2002) in discussing regulatory frameworks, clarifies:

> *The term "professional regulation" is often misunderstood and interpreted as the imposition of bureaucratic rule-bound requirements which constrain the activities of the profession concerned and serve to maintain the isolation and separateness of the professional from the person for whom they care. Nothing could be further from the truth. Professional regulation, or professional governance, as it should, perhaps, more accurately be known, should be an exciting, dynamic framework within which professional standards can be identified in order to serve the main aim of regulation—that of public protection*.

The addition of paramedics to the NRAS represents a major change in terms of the governance of paramedics and more existentially in terms of the derivation of their occupational identity, at least on a formal level.

Other Professions and Regulation

Many professions have undertaken the transition into a regulatory framework. Medicine in Great Britain began the path to regulation as early as 1421, with the College of Physicians being formed in 1511 (Raach, 1944). Later the Apothecary Act of 1815 and Medical Act of 1858 set clear delineation between qualified and unqualified doctors (Roberts, 2009). Following medicine's reforms in the 19th century, several professions moved towards professional regulation in the last part of the 19th century or beginning of the 20th century, for example: dentistry and pharmacy and more broadly engineering and architecture (Anon, 1930). Nursing adopted regulation in most English-speaking countries in the first quarter of the 20th century (Fealy et al., 2009). Many allied health professions (e.g., physiotherapy, occupational therapy, chiropractic) grew as professions in the early half of the 20th century, and, depending on the jurisdiction, generally established regulatory frameworks in the post-World War II period (Andersen & Reed, 2017; Fornasier, 2017; Keating, 2006).

Studying the impact of regulation

While there is some work on the legal basis of health professional regulation or descriptions of regulatory frameworks (Bolton, 2010; Bryce & Foley, 2014), there is little research examining the way the practitioners interact with regulatory systems. A handful of disciplines, most notably social work, have considered the implications of regulation within their workforce (Beddoe, 2015; Beddoe & Duke, 2009). Others have attempted to document the journey of their profession into their current regulatory framework (Coburn, 1993; Gibbs, 2013). Those professions who have been regulated for some time reflect on developments within their regulatory environment (Salter, 2001; Waring, 2007).

The impact of new regulation has rarely been explored, especially through a sociological lens. The instigation of regulatory frameworks is often driven by a perceived need to regulate either in response to sentinel events or as part of the natural development of a profession (Raach, 1944; Moritz, 2018). As exploration of the sociology of health professionals is a relatively recent development, many (especially established) professions were already regulated before such research could be applied to their regulatory and professional transitions.

Methods

Methodology

This study uses an embedded mixed methods approach grounded in social constructivism. Social constructivism holds that knowledge and beliefs are constructed based on a complex series of relationships and influences (Keaton & Bodie, 2011). It is likely that paramedics' perceptions about being regulated are based on a range of influences such as culture, education, knowledge of regulation and previous experiences with regulation. For example, it is hypothesised that views of regulation between State and Territorial jurisdictions may differ based on diverse workplace cultures and industrial histories. Likewise, social constructivism is

linked to postmodernism which recognises that individuals have unique experiences and worldviews, and resultingly, a diversity of views may exist within a population (Liamputtong, 2013). While surveys have traditionally operated within a positivist or post-positivist construct (Groves et al., 2009), the design of this survey primarily seeks data about perceptions or worldviews which is more appropriately situated in a sociological paradigm such as social constructivism.

Survey Design

Data was collected using a survey combining multiple-choice questions (MCQs), matrix multiple-choice (i.e., a single MCQ with multiple topic areas) and free text questions. MCQ and Matrix MCQ questions produce a single definitive answer. The survey tool was designed to collect information in support of the research question and sub-questions within the constructivist approach. Qualtrics was the platform used to design and deploy the survey. Distribution was primarily through social media and open for responses over a 30-day period leading up to participation day. Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (Approval 2018/462).

The survey was designed to capture different elements of the perceptions and experience of entering regulation plus basic demographic data. The survey was broken down into five sections shown in Table 6.1:

Table 6.1: Survey sections and questions.

Section	Questions	Purpose
Knowledge of the new regulatory scheme	Six (6) 4 MCQ 2 Free Text	This section explored the self-reported knowledge of participants about the regulatory scheme for paramedics being implemented in late 2018. The first three questions explored knowledge of the scheme in general, registration standards and the process for complaint handling. Question 4 examined perceptions of the quality of communication from the regulator leading up to the commencement of the scheme. The final two questions are free text and will be reported in a subsequent paper.
Perceptions of the new regulatory scheme	Seven (7) 6 MCQ 1 Free Text	This section asked participants for their perceptions of the regulatory scheme. Questions 1-6 asked about changes in patient safety, changes in individual accountability, changes in fairness of complaint handling, variety of work opportunities, changes in scope of practice and changes in remuneration respectively. The final question is free text.
Impact of the new regulatory scheme on the respondent personally	Five (5) 3 MCQ 2 Free Text	This section sought the participant's views on how the regulatory scheme will impact them personally. Question 1 asked about the participant's views on registration using a five statement range from strongly unsupportive to strongly supportive. Question 2 asked if the participant is experiencing concern or anxiety because of registration. Question 3 asked about the respondent's confidence in being registered. The final two questions are free text.
Impact of the new regulatory scheme on paramedic identity	Five (5) 3 MCQ 1 Free Text 1 Matrix MCQ	This section sought the participant's views on how the regulatory scheme will impact their professional identity and what forms their sense of identity as a paramedic.
Demographics	Twelve (12) 3 number responses 8 MCQ 1 Matrix MCQ	This section collected demographic data about participants including: • Age, gender, years of service • Qualifications • Nature of employment • Jurisdiction of practice • Membership of professional bodies

A pilot was undertaken with a convenience sample of twenty-one participants who completed the survey with additional feedback questions about survey design. Feedback was incorporated into the final version to increase both clarity and brevity of the questions. Pilot data was not included in analysis although participants were invited to complete the final version of the survey.

Population

At the time of the survey, the estimated number of paramedics in Australia was 15,000. This figure is based on the 13,727 people that self-reported in the 2011 Census the occupation of "Ambulance Officer" or "Intensive Care Paramedic" plus practitioners who report in other categories (for example, military paramedics primarily report as "Defence Force Members"). As paramedics were not yet operational in the NRAS at the time of the survey, Census data was the best available method of estimating workforce size (Paramedics Australasia, 2012a). This figure encompasses estimated workforce growth since 2011 from increases in university graduates and staffing enhancements by major employers. Estimates were also referenced against workforce figures from the Council of Ambulance Authorities (Council of Ambulance Authorities, 2018). Based on this estimated population, seeking a 95% confidence level, and accepting a 5% margin for error, a target survey population was calculated at 375 respondents. Inclusion criteria for this survey were that participants self-identified as paramedics and principally practiced in Australia.

Data Analysis

Data analysis was undertaken utilising several methods. Qualtrics itself provides significant amounts of data reporting, primarily around percentages and populations. Likewise, cross-tabulations were undertaken using Qualtrics's data analysis functions, especially to produce tables. Other basic calculations were undertaken in Microsoft Excel where the survey data was exported from Qualtrics. These calculations included means, some percentages, and graphing of demographic data. This was especially used for demographic data. Chi Squared tests were undertaken using an online calculator for social research statistics (https://www.socscistatistics.com/tests/chisquare2/default2.aspx).

Results

Responses and Demographics

There were 492 survey responses, with 419 fully completed (85%). The seventy-three partially completed responses were excluded from analysis. Geographically, New South Wales was over-represented while Queensland and Victoria were underrepresented. Responses from other States and Territories were relatively proportionate to their paramedic workforce. Approximately two-thirds of respondents were male, and one-third were female representing slightly more males compared to workforce data (Paramedicine Board of Australia, 2019b). This is shown in Table 6.2.

Table 6.2: *Respondents by jurisdiction and gender*

	Number in Survey	% Of Survey	% Of Workforce
Jurisdiction			
Australian Capital Territory	17	4%	1.5%
New South Wales	146	35%	25.4%
Northern Territory	5	1%	1.1%
Queensland	77	18%	26.42%
South Australia	38	9%	7.1%
Tasmania	23	5%	2.61%
Victoria	84	20%	29.21%
Western Australia	29	7%	5.9%
Gender			
Male	283	67.5%	59.7%
Female	131	31.3%	40.2%
Intersex/Indeterminate	5	1.2%	0.1%
Total	419	100%	100%

The age distribution of the survey group was broadly representative of the Australian paramedic workforce. Notable exceptions are a slightly higher participation of the 45-55 age bracket and slightly lower participation by paramedics under 30 years of age (Fig. 6.1).

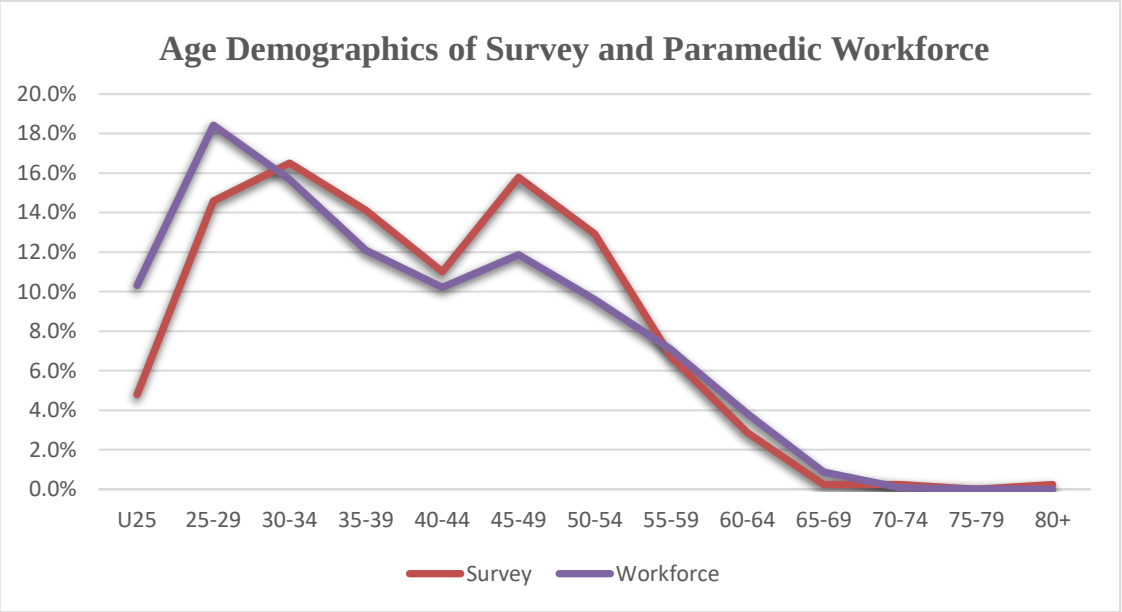

Figure 6.1: Age of respondents compared to age of workforce

Workforce comparison data came from the September 2019 Registrant Data Table from the Paramedicine Board of Australia (PBA) (Paramedicine Board of Australia, 2019b). While this data is slightly more recent than the survey data, estimates from the PBA at the time of the survey proved inaccurate after registration implementation (a substantially larger number of paramedics were registered than the PBA's estimates). Additionally, only approximately 60% of registration applications had been processed on participation day making the December 2018 registrant data incomplete. These two factors meant that while a small number of newer registrations is included in the September 2019 registrant data, it is likely a more robust snapshot of the workforce on participation day.

Knowledge of The Registration Scheme

Participants reported that they perceived themselves to have generally good knowledge of the scheme overall. However, confidence in their level of knowledge decreased in questions relating to specific elements of the registration framework (Table 6.3).

Table 6.3: Question K1-3, participant knowledge of the registration scheme (K1), registration standards (K2) and complaint handling (K3).

Question	I have no knowledge of it.	I have a little knowledge of it.	I have some knowledge of it.	I have a good knowledge of it.	I have an excellent knowledge of it.
K1 - How would you describe your knowledge of the upcoming registration scheme for paramedics under the NRAS overall.	5 (0.95%)	47 (8.59%)	187 (37.95%)	205 (42.24%)	48 (10.26%)
K2 - How would you describe your knowledge of the Registration Standards applied to paramedics under the registration scheme.	25 (4.77%)	77 (14.80%)	183 (36.28%)	168 (35.80%)	39 (8.35%)
K3 - How would you describe your knowledge of the process for managing serious complaints against paramedics (in your state or territory) once registration commences.	134 (26.97%)	149 (28.88%)	146 (29.59%)	54 (12.41%)	9 (2.15%)

Participants were asked their perception of how efficiently information regarding registration was disseminated by the PBA. Just under half of respondents (221/45%) reported that information was not disseminated adequately, while 271 respondents (55%) reported they found information dissemination to be adequate or good.

Perceptions of The Registration Scheme

When asked about their perceptions of how registration would change elements of paramedic practice, most participants believed that patients would be as safe or safer and that paramedics would be more accountable. However, other areas such as remuneration and scope were unlikely to change (Table 6.4).

Table 6.4: Question P1-6, perceived impact of registration on patient safety (P1), practitioner accountability (P2), fairness of complaint handling (P3), employment opportunities (P4), scope (P5) and remuneration (P6).

Question	**Substantially less (or will substantially decrease)**	**Slightly less (or will slightly decrease)**	**No change**	**Slightly more (or will slightly increase)**	**Substantially more (or will substantially increase)**	**Insufficient information to decide**
P1 - Do you think that patients will be safer once paramedics are registered? (This refers to their overall safety, both in terms of their risk from poor clinical practice AND their risk from poor conduct or unqualified/underqualified practitioners)."	4 (0.95%)	5 (1.1%)	198 (47.36%)	102 (24.34%)	95 (22.67%)	15 (3.58%)
P2 - Do you think that paramedics will be more individually accountable once paramedics are registered compared to current levels of individual accountability?	1 (0.24%)	4 (0.95%)	76 (18.14%)	104 (24.82%)	223 (53.22%)	11 (2.63%)
P3 - Paramedic registration changes the way major complaints against paramedics are handled. How do you think this change will affect the fairness of this process (if at all)?	55 (13.13%)	66 (15.75%)	46 (10.98%)	76 (18.14%)	91 (21.72%)	85 (20.29%)
P4 - Do you think that the variety of employment opportunities for paramedics (that is, the roles and organisations paramedics can work in) will change once paramedics are registered?	20 (4.77%)	16 (3.82%)	130 (31.03%)	125 (29.83%)	105 (25.05%)	23 (5.49%)
P5 - Do you think that the scope of practice for paramedics (that is, the range of clinical treatment options) will change once paramedics are registered?	10 (2.39%)	12 (2.86%)	231 (55.13%)	96 (22.19%)	36 (8.59%)	34 (8.11%)
P6 - Do you think that the level of remuneration for paramedics (how much paramedics are paid) will change once paramedics are registered?	7 (1.67%)	15 (3.58%)	287 (68.50%)	73 (17.42%)	10 (2.39%)	27 (6.4%)

Impact of The Registration Scheme on Paramedics

In Question I1, participants were asked for their overall view of registration. Negative views were reported in 25.53% of respondents whereas 13.60% had a neutral view, 59.19% had a positive view and 1.67% were undecided. Registration represented changes in the way that people can identify as paramedics and creates a new process for formal acceptance into the profession. While it was expected that most practicing paramedics would enter the NRAS seamlessly, people identifying as paramedics held a range of experiences and qualifications which had not previously been used to determine their inclusion into, or exclusion from, the profession. As such, it was likely some people practicing as paramedics would have concerns about meeting the new standards. Participants were asked if they had concerns or anxiety around registration and the registration process. Respondents were asked to assign themsleves to one of five self-reported classiciations of concern or anxiety. Almost half of the respondents (46%) indicated that they did not have any concerns about the registration process. Another 46% indicated that they had some level of concern. Eight percent (8%) of respondents indicated that they had physical symptoms of anxiety. In those who reported anxiety over registration, 12% reported the symptoms were severe and causing events such as panic attacks.

When asked about their confidence in being granted registration, 81% had either been granted registration (the application process commenced several months before participation day, with approximately 40% of respondents accepted at the time of the survey) or were confident of receiving it. However, 14% were only slightly or moderately confident and 3% believed they would not be granted registration. One percent had either chosen not to apply because they believed they would be declined or had already been declined registration.

Perceptions of the Impact of The Registration Scheme on Professional Identity

One of the core elements of self-regulation is the capacity of the profession to determine who is or is not a member (Reed, 2019). The survey asked paramedics how they constructed their identity and the importance of five key elements of identity including professional registration qualifications, employment, community of practice and scope. This is outlined in Table 6.5.

Table 6.5: Question T1, factors impacting paramedic identity.

Factor in Identity	Not important to my sense of who I am as a paramedic	Slightly important to my sense of who I am as a paramedic	Somewhat important to my sense of who I am as a paramedic	Very important to my sense of who I am as a paramedic	Extremely important to my sense of who I am as a paramedic
Professional registration	172 (41.05%)	52 (12.41%)	88 (21.00%)	73 (17.42%)	34 (8.11%)
The qualification you obtained to be a paramedic	43 (10.26%)	29 (6.92%)	76 (18.14%)	155 (36.99%)	116 (27.68%)
Being employed as a paramedic	18 (4.30%)	12 (2.86%)	53 (12.65%)	156 (37.23%)	180 (42.96%)
Being part of a community of practitioners	69 (16.47%)	47 (11.22%)	114 (27.21%)	109 (26.01%)	80 (19.09%)
Your scope of practice	29 (6.92%)	23 (5.49%)	78 (18.62%)	154 (36.75%)	135 (32.22%)

Employment rated as the most important element of professional identity with 80% of respondents saying it was extremely or very important. Around 37% of respondents indicated scope and qualifications were very important with 32% and 28% respectively considering those elements to be extremely important. Conversely membership of a community of practice varied in importance and 41% of respondents indicated that registration was not at all important. Question T3 asked if being registered would likely change their identity. Responses were mixed, with 61% of respondents believing that their professional identity would "definitely not" or "probably not" change. Approximately 24% of respondents believed their sense of professional identity would change and 10.5% reported being unsure. Considering whether registration would change their internal identity as seen by other paramedics, most respondents (68%) indicated that little or no change would occur. Respondents reported higher confidence in their professional identity changing amongst other health disciplines with 36% believing this would be the case.

Impact of Demographics on Perceptions of Registration

One of the assumptions of the implementation of paramedic regulation in Australia was that the move to regulation would be more welcomed by younger practitioners and those with baccalaureate-level entry to practice education. Likewise, it was thought regulation would be less welcomed by those who were older or more experienced practitioners and those trained through vocational systems. However, this premise has not previously been tested. Experienced paramedics are often seen as change-adverse, and this underpinned this assumption (Wankhade, 2012; Wankhade et al., 2018). When demographic data was cross tabulated with key survey questions, it shows a less dichotomous relationship between views of regulation. There was some correlation between initial education and views of regulation, however there was a bimodal relationship with years of practice where those at the newest and most experienced ends of the spectrum expressed the most positive views of regulation.

Table 6.6: Years of Practice, Initial Qualification and Jurisdiction of Practice cross-tabulated with support for registration

	Strongly unsupportive		Slightly unsupportive		Neither supportive nor un-supportive		Slightly supportive		Strongly supportive		Insufficient information		Total	Percentage of Total Sample
Years of Practice														
0-5	4	3%	22	17%	13	10%	26	20%	60	47%	2	2%	127.0	30.3%
6-10	10	11%	14	16%	17	19%	16	18%	30	33%	3	3%	90.0	21.5%
11-20	23	21%	10	9%	18	16%	23	21%	37	33%	1	1%	112.0	26.7%
21+	13	15%	12	14%	7	8%	10	11%	44	51%	1	1%	87.0	20.8%
No Answer	0	0%	0	0%	1	33%	0	0%	2	67%	0	0%	3.0	0.7%
Initial Qualification (for entry to practice)														
Vocational	31	18%	36	21%	26	15%	27	16%	50	29%	3	2%	173	41%
University	19	8%	21	9%	31	13%	49	20%	122	50%	4	2%	246	59%
Primary Jurisdiction of Practice														
NSW	20	14%	24	16%	24	16%	26	18%	50	34%	2	1%	146.0	34.8%
VIC	10	12%	7	8%	9	11%	19	23%	38	45%	1	1%	84.0	20.0%
QLD	7	9%	8	10%	9	12%	14	18%	36	47%	3	4%	77.0	18.4%
SA	3	8%	8	21%	7	18%	4	11%	15	39%	1	3%	38.0	9.1%
WA	6	21%	7	24%	2	7%	5	17%	9	31%	0	0%	29.0	6.9%
TAS	2	9%	1	4%	5	22%	2	9%	13	57%	0	0%	23.0	5.5%
ACT	2	12%	1	6%	1	6%	6	35%	7	41%	0	0%	17.0	4.1%
NT	0	0%	1	20%	0	0%	0	0%	4	80%	0	0%	5.0	1.2%

Each of these key variables (years of service, initial qualification, highest qualification, and state) were tested using a Chi Squared test of independence. There was a positive association between years of practice and support of registration (X^2 (df=12, N=409) = 33.40, $p<0.001$ where p was significant at <0.05)). Of interest is that support for registration was strongest in the 20+ years of practice cohort and the less than five years of practice cohort, suggesting a non-linear relationship between years of service and support for registration. The initial education of the paramedic is also an indicator of support for registration (X^2 (df=4, N = 412) = 32.17, $p<0.001$ where p was significant at <0.05)). For example, strong support was 20.8% higher in the University-trained cohort than the expected result based on the survey mean and was 29.6% lower than expected in the vocationally trained cohort.

Discussion

Knowledge of The Registration Scheme

Generally, paramedics felt that they had a good knowledge of registration, the process, and the implications of the scheme overall. However, questions that dealt with more detailed elements of registration such as standards or complaints-handling showed lower levels of confidence. The perception of the process of information dissemination by the PBA is likely to be influenced by a range of factors. These will be explored in a subsequent paper examining the qualitative data from the survey. Given the novel experience of having an external regulator and the complexity of paramedic culture, which has traditionally been change-adverse, it was expected that navigating the new registration scheme and integrating it into the profession would not be without challenges (Wankhade et al., 2015; Wankhade et al., 2018; McCann & Granter, 2019).

Perceptions of The Registration Scheme

The perception of the impact of registration on the profession varied based on the type of impact being discussed. Respondents felt their personal circumstances, such as remuneration and scope were unlikely to change. However, most respondents felt paramedics would be more accountable

and patients would be as safe or safer, suggesting that these core elements of regulation would be achieved. Views about complaints handling were mixed and with 20% suggesting they did not have enough information to form an opinion. This suggests that without having seen the complaints process in action, the fairness of the process was open to speculation. It is noteworthy that to this point, complaints about paramedics have been regulated primarily by employers rather than by the profession itself through a regulatory authority (Moritz, 2018).

Impact of The Registration Scheme on Paramedics

Sixty percent of respondents were positive towards registration. However approximately one quarter of respondents held negative views. The nature of these will, again, likely be borne out of the subsequent qualitative analysis of data from this survey. However, the change-resistant nature of the profession may be an underpinning element in this view (Dempsey, 1999; Wankhade, 2016; Wankhade et al., 2018; McCann & Granter, 2019). Another possibility is that some paramedics, having spent their careers to date regulated through internal employment mechanisms, find less utility in external regulation (Moritz, 2018). A traditional role of regulation, it has been argued, is the creation of professional monopolisation of services (Freidson, 1983). Again, this is a situation already experienced by Australian paramedics for over a century in most aspects of their current roles through the existence of structural government monopolies of service provision and inherent control over their work and technologies (McIntyre, 2003).

The impact of years of service and education on views of registration shows a complex relationship between paramedics and their views of regulation. For example, paramedics with 20 years or more of service are likely to be almost exclusively vocationally trained yet as a cohort hold the highest level of support for regulation. While this may seem initially counterintuitive based on the data, it recognises that longevity in the profession may both increase the likelihood of having engaged in further education or holding a more refined philosophical view of the profession.

The question about concerns and anxiety holds further interest. While around half of respondents held no concerns prior to regulation, the fact that half report some concern and 8% of respondents experience clinical signs of anxiety shows that the introduction of regulation is more than an administrative process. One of the key elements of regulation is that it shifts the legal right to identify oneself as a paramedic from employment status or practitioner self-identification to a community of practice and/or regulator (Reed, 2019). Given that 4% of respondents either had already been denied registration or believed they would not be registered, that is a quantifiable number of practitioners who will be faced with significant identity transition because of the new regulatory framework. All practitioners would have undertaken some process of socialisation to create their paramedic professional identity. In this situation, identity relies on inclusion within a group (Hafferty, 2016). The exclusion, or potential exclusion, from that group, creates the potential of an existential crisis in practitioners who now face an unknown process with an uncertain outcome around whether they can continue to embrace an identity legally and ethically they may have held for some time.

Perceptions of the Impact of The Registration Scheme on Professional Identity

When asked about their current sense of identity, respondents primarily indicated that their employment followed by their scope of practice have the largest impact on their identity. In a sense these elements are the most tangible and support a notion of identity through being engaged in a profession in a practical way and "doing" the tasks and roles associated with that profession (Ewing & Smith, 2008; O'Meara, 2011). Equal with scope of practice is qualification which also provides a sense of a journey with a tangible outcome or a milestone which is reached creating a clear transition point from student to practitioner. Registration is reported to have the least impact on professional identity, however this came with the caveat that when the question was asked, the regulatory system had not yet begun, so practicing as a registered health professional was still a theoretical construct to almost all Australian paramedics. The following question, which asked if respondents felt their identity would change because of registration, saw the majority report it would not. This is likely because it required speculation of how one

would construct their identity in the future in reference to something which had not yet occurred. Perception of both internal (other paramedics) and external (other health professionals) views of identity may reflect that within the community of practice, regulation will have limited impact on identity, however, by bringing paramedics into the same regulatory framework as other health professionals there may be a greater sense of parity.

Conclusion

Prior to the implementation of the regulatory framework, paramedics seemed unsure of many of the more speculative impacts of the scheme or the operation of the more detailed elements. There does seem to be agreement that regulation through the NRAS will increase accountability and safety, which is the primary aim of the regulatory process. Paramedics have not been regulated in this way previously and have relied on largely occupational identity and governance to establish professional norms and provide a degree of accountability. To shift this accountability to a regulatory body representing the interests of the community is a significant paradigm shift for paramedics.

The results of this study give a sense of the range of perceptions and views which each paramedic has about regulation. While most paramedics seem to favour the new regulatory environment, there is a clear group who do not. There are also significant variances in paramedic's reported knowledge of the scheme, especially the more detailed elements of the operation of the scheme. Likewise, their views of the impact regulation will have also varied. What is more, there are clear trends in the demographics associated with different positions, where those trained in universities view regulation more favourably compared to those trained vocationally, and likewise those in mid-career are more resistant than both those at the beginning or those with substantial experience. This highlights the diversity of views on regulation and supports the premise that paramedicine is a heterogeneous collective of sub-cultures with potentially wide-ranging worldviews.

This study performs two important tasks. It provides us with insights into the perceptions of

members of a profession facing an impending regulatory change. In addition, this snapshot of paramedic perceptions provides a benchmark for future studies to measure the evolution of a profession as it navigates a new regulatory environment. There has been little study of the transition of a profession into a regulatory framework, especially as many professions have been regulated for decades, if not centuries, before studies of professions entered academic realms. The opportunity to study a relatively new profession as it evolves through its occupational and regulatory growth is significant. How paramedics navigate the new regulatory environment and how it will impact on professional identity and culture are yet to be seen. This study provides a clear picture of the state of the Australian paramedic profession prior to entering its next phase of evolution and may provide guidance to other jurisdictions following Australia in their regulation journeys.

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Chapter 7: A Qualitative Exploration of the Perceptions of Australian Paramedics During the Transition into Professional Regulation

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This article reports the qualitative results from the 2018 (Pre-Registration) Perceptions of Registration survey.

Abstract

In 2018, Australian paramedics entered the National Registration and Accreditation Scheme for Health Practitioners. The scheme represented a significant change in the way paramedics were regulated and able to self-identify. Equally, it brought substantial changes to the individual accountability and responsibilities of practitioners. Response was largely positive, however diverse views existed on the intent and impacts of the scheme. Paramedics were surveyed immediately before registration commencement to examine their views concerning the new regulatory framework. Supportive views included acknowledgement of regulation's public safety function and potential advancement of the profession. Dissenting views predicted increased practitioner risk and degradation of working conditions. Importantly, this study explores how members of the same profession can have diverse views of the same regulatory scheme. This study supports the notion that paramedicine consists of diverse subcultures with differing worldviews. This presents challenges in ensuring cohesive professional engagement with regulation and the evolution of the profession.

Introduction

Paramedicine is an emerging profession which has undergone significant growth and development in the last 50 years (Moritz, 2018). Paramedicine has increasingly become part of health regulatory frameworks in a number of jurisdictions as the scope, education and roles of paramedics have expanded. In 2018, paramedicine entered the National Registration and Accreditation Scheme (NRAS) for Health Practitioners in Australia becoming the fifteenth profession in the scheme (*Health Practitioner Regulation National Law 2009*, (QLD); Moritz, 2018). This article explores the qualitative elements of an initial survey in 2018 to explore Australian paramedics' perceptions of regulation prior to its implementation. The aim of the larger study was to describe the experience of Australian paramedics transitioning from a discipline with a disparate framework of employer-based regulation and governance to a nationally regulated profession with self-determination over standards and practice.

The Origins and Advancement of Paramedicine

Paramedicine in most English-speaking countries developed from military and civil ambulance services in the mid-to-late 19th century (Margolis, 2005; Moritz, 2018). In most paramedic systems using the Anglo-American model (where paramedics practice independently under remote governance structures) there were major developments in paramedic education and scope in the 1970s (Brooks et al., 2018; Dick, 2003; Makrides et al., 2020). These changes included formalised education, expansion of scope, increased autonomy, increased standards of care, development of a unique body of knowledge and, later, diversification of the paramedic role (O'Brien et al., 2014; Williams et al., 2009). Paramedics in contemporary practice are highly trained health professionals managing complex, chronic and primary healthcare-related medical conditions in a holistic way addressing both clinical factors and social determinants of health (Cockrell et al., 2019; Newton et al., 2020). Contemporary paramedic practice routinely involves care plans, interprofessional referrals, health promotion and collaborative person-centred practices designed to empower and educate the patient (Long & Lord, 2021). Emerging

practice environments such as community paramedicine and palliative care are showing the utility of paramedics in new areas of healthcare (Long & Lord, 2021; O'Meara et al., 2017). An increasing number of countries now train paramedics though university degree programs. Australia, New Zealand, and the United Kingdom have fully or almost fully transitioned to university pre-employment education and countries as diverse as Ireland, Canada, Finland, Malaysia, Taiwan, and Poland are implementing undergraduate degrees as the entry-level standard (Brooks et al., 2018; O'Meara et al., 2017). Paramedicine is increasingly based on evidence generated from within the profession, especially with increasing involvement of the university sector (O'Meara et al., 2017). This evolution of the profession largely owes itself to the adaptive and responsive nature of paramedicine practice to address emerging health issues within the community (Newton et al., 2020).

The Increasing Professionalisation of Paramedicine and the Need for Regulation

The emerging paradigm of paramedic practice involves greater autonomy and agency. As a result, safeguards are needed to be put in place to balance this increasing autonomy and power with the interests of the community (Reed, 2019). The primary function of regulation is protection of the public (Freckelton, 2006; World Health Organisation Regional Office for the Eastern Mediterranean, 2002). This is achieved through mechanisms including title protection, entry to practice standards, codes of conduct and other regulatory standards. These set clear boundaries for the practice of the profession (Irvine, 2016; Moritz, 2019). Additionally, less-formal mechanisms such as the establishment of cultural and professional practices and values guide practitioners' behaviour (Waring, 2007). A significant part of professionalisation is establishing the social contract between the profession and the society it serves. The increasing scope, roles and autonomy of paramedicine move it along the occupational continuum towards greater status as a profession. As such, checks and balances are required to ensure the community has sanction over the profession and its status.

The NRAS is a unique model which has at the centre a self-regulatory model but in a co-regulatory relationship with the government. While a larger framework exists within the regulatory and legislative instruments, the individual accountability for setting standards for paramedicine rests with the Paramedicine Board of Australia (PBA) as the representative of the profession. The PBA shares regulatory functions with the Australian Health Practitioner Regulation Agency (AHPRA) and in some cases co-regulatory arrangements with state agencies (*Health Practitioner Regulation National Law (QLD), 2009*; Moritz, 2019). The self-regulatory element makes the profession itself responsible for its conduct and activities (delineating it from other forms of regulation such as licensing). Thus, the profession has a direct stake in its social contract with the community and has control over how it discharges its role within the social contract (Reed, 2019).

Historically, in Australia, paramedics were unregulated in the sense that there was no external structure providing governance of the profession as a whole. This situation arose through the development of jurisdictionally-based ambulance services, which were governmental, or quasi-governmental bodies, as the sole employer of ambulance officers or paramedics for almost a century (Moritz, 2018). As a result, organisational governance was seen as a sufficient mechanism to regulate the work of practitioners. However, from the 1990s, there has been a significant increase in the scope of paramedics, the complexity of their patient population and the employment of paramedics outside the statutory agencies (Western Australian Department of Health & Victorian Department of Health, 2015). Organisational governance alone no longer serves as an effective mechanism for regulating this increasingly diverse profession and importantly separates the interests of the employer from the regulation of the profession (Eburn & Bendall, 2010; Moritz, 2018).

In 2010 Australian Health Workforce Ministerial Council sought advice on whether paramedics should be regulated as a profession. A 2015 report highlighted the level of potential harm from the increasingly complicated clinical procedures undertaken by paramedics, the dynamic nature of the environments in which they work and the often vulnerable, unstable and/or complex nature of the patients they attend. The risk was compounded by inconsistencies nationally in training, standards, nomenclature, and governance. Equally important was the lack of a consistent and transparent process of managing complaints from the public about professional and clinical matters relating to paramedics (Western Australian Department of Health & Victorian Department of Health, 2015). Paramedicine entered the NRAS on 1 December 2018 (known as "participation day") to become the 15th registered health profession in Australia (Moritz, 2018).

The Impact of Regulation on Practitioners

Although regulation within health professions has been written about from both a legal and professional point of view, little has been written on the impact of regulation on practitioners as individuals or as a professional group. Most health professions with a regulatory framework have been regulated for some time. For example, medicine was first regulated in England as early as 1421 with significant legislation regarding medical practice emerging in the 19th century (Raach, 1944; Roberts, 2009). The New South Wales Colony established a medical board in 1828 almost three decades before a similar body in Britain. Pharmacy and Dentistry entered regulatory arrangements around the end of the 19th century (Cummins, 2003). Nursing, likewise, has been regulated in Australia since the 1920s (Bryant, 2001; *Nurses Registration Act (SA), 1920*). Many allied health professions established regulatory frameworks in the early to mid-twentieth century which later transitioned into the NRAS with its establishment in 2010 (Evans, 1955; Willis, 1983).

The established health professions have experienced some form of professional regulation for decades, if not centuries, well before the study of professions was established. This created the novel opportunity to study paramedicine transitioning from an arguably unregulated profession to a fully regulated one and explore the impact on an entire profession of moving to a new regulatory environment. Some work has suggested that regulation is seen by those in emerging professions as the impost of bureaucratic restrictions and processes (Bennett et al., 2018). The World Health Organisation suggests that regulation should be "focused, flexible and enabling" as a way of helping health practitioners engage with their ethical responsibilities to the public (World Health Organisation Regional Officer for the Eastern Mediterrean, 2002).

Examining the Impact of Regulation

Paramedicine is a unique case study for examination as it has been undertaking a significant amount of change in recent decades, not least of which is the introduction of professional regulation (Reed, 2019). Previous work around the profession has shown there is not a homogenous paramedic culture (Wankhade, 2012). As a result, response to change within paramedicine can be varied based on local and individual factors and worldviews. There are elements of paramedic culture which are more adverse to change either due to ingrained beliefs about the nature of change or due to fatigue from high levels of change (Wankhade et al., 2015; McCann & Granter, 2019).

Regulation is closely linked with professionalisation (Reed, 2019). In the lead up to professional regulation, paramedicine has attempted to come to terms with the implications of regulation on its professional status and its position within the continuum of occupations (Bell et al., 2021; Williams et al., 2009). Paramedics had never been centrally regulated in this way so there was significant discussion about the impact on identity and societal position as well as pragmatic issues such as complaints management and the role of different governance frameworks. Likewise, the argument for entering a regulatory framework has been made based on both the increasing diversity of the profession and paramedicine's movement along an occupational

continuum towards a more professional standing (Eburn & Bendall, 2010). However, a tension does exist between the more trade-based origins of the profession and the newer status as a healthcare profession grounded in tertiary education and evidence-based practice (McCann et al., 2013). As paramedics in Australia are largely institutionalised, with around 75% working for one of eight government or quasi-government employers, the interaction between external regulation and paramedics' traditional sense of control and governance from the employer is likely to influence their perception of the experience of regulation (Wankhade et al., 2015).

Methods

Methodology

This study used a mixed-methods approach grounded in Social Constructivism, contending that knowledge and beliefs are formed based on a range of relationships and influences (Keaton & Bodie, 2011). While a positivist or post positivist approach is more common in surveys, (Groves et al., 2009) the aim of this study was to explore perceptions and experiences which can be coloured by various elements in the worldview of the study participant. The study is therefore better suited a methodology more commonly used in sociology such as social constructivism. It is theorised that belonging to the same profession, paramedics will have a range of views of regulation based on external influences including employment organisation, jurisdiction, educational background, length of service and other underpinning social and cultural elements.

The analysis of qualitative data is grounded in hermeneutic phenomenology. Hermeneutics, most notably linked to Martin Heidegger, contends that to understand the *Dasein*, or the experience of being, one needs to consider the hermeneutic, that is the interpretation of being. Essentially, a human experiences "being" and then needs to express that being in a way which the researcher will then interpret as they cannot live that person's being themselves (Heidegger, 1962; Smith et al., 2009). The social constructivist approach to this study sits well with

hermeneutics as it supposes a relativist ontology which recognises that truth to each individual is relative to their worldview (Burkholder & Burbank, 2019).

Survey Design

The survey utilised a range of data collection tools including multiple choice questions (MCQs), matrix multiple choice questions (an MCQ with several topic areas) and free text questions. The survey was designed and deployed using the Qualtrics platform. The survey was distributed through social media both directly by the researchers and via professional organisations. The survey was open to responses for thirty days leading up to participation day. Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (Approval 2018/462). All participants began the survey with a Participant Information Sheet outlining study information and consent and how to withdraw from the study. The survey consisted of twenty-three questions plus twelve demographic questions. The questions were divided into five sections found in Table 7.1:

Table 7.1: Survey Questions by Section

Topic	**Number of Questions**
Knowledge of the new regulatory scheme	Six questions (2 free text)
Perceptions of the new regulatory scheme	Seven questions (1 free text)
Impact of the new regulatory scheme on the respondent personally	Five questions (2 free text)
Impact of the new regulatory scheme on paramedic identity	Five questions (1 free text)
Demographics	Twelve questions

Within these sections were five open text questions which are the focus of this publication and constitute the qualitative component of the survey. These are found in Table 7.2:

Table 7.2: Free Text Questions

'Why do you think paramedics are becoming registered under the National Registration and Accreditation Scheme for health professions?'
'Were there any elements of registration that you have found it challenging to get clear answers or information on?'
'What do you think the effects of registration on the profession of paramedicine will be? (These effects can be positive or negative.)'
'What do you think the impacts of registration on you personally as a health practitioner will be? (These may be financial, educational, the way you practice, or anything which you think will change for you as an individual).'
'You can use this space to share anything additional about registration and the implementation of registration (either in terms of your personal situation or for the profession as a whole). This may include any other thoughts or opinions you have about registration which have not been covered by previous questions.'

Population

As paramedics had not yet entered the NRAS at the time of this survey, the number of paramedics in Australia had to be estimated. The Australian Bureau of Statistics 2011 census data around occupation reported 13,727 people listing "Intensive Care Paramedic" or "Ambulance Officer" as their occupation (Paramedics Australasia, 2012a). This figure was adjusted to account for other paramedics such as Defence Force medics who may list their occupation as "Defence Force Member" and university graduates who had entered the workforce since 2011. The figures were also cross-referenced to Council of Ambulance Authorities workforce data (Council of Ambulance Authorities, 2018). The estimate arrived at was 15,000 paramedics practicing in Australia. Inclusion criteria for this survey were that participants self-identified as paramedics and principally practiced as paramedics in Australia at the time of the survey.

Data Analysis

Microsoft Excel was used for coding and data analysis using the technique Interpretive Phenomenological Analysis (IPA). Building on Heidegger's work around Hermeneutics, IPA recognises the interpretive necessity of the researcher seeking to understand the *Dasein* of the subject. In this way, IPA operates with a double hermeneutic, that is, it recognises that is the analysis of the researcher making sense of the participant making sense of their world (Smith et al., 2009). One of the benefits of IPA in this study is that it recognises the complexity of interpreting the subject's interpretation of both their experience and their sense of truth (Smith et al., 2009). Additionally, it recognises that while the subject is interpreting a phenomenon the researcher is also interpreting that phenomenon, but from a different standpoint informed by the resources on which the researcher can draw (Braun & Clarke, 2013; Smith et al., 2009). In this case, the researcher is interpreting paramedics' perceptions of regulation, which the researcher has studied extensively. While it is common for phenomenological researchers to bracket their pre-existing conceptions (Burkholder & Burbank, 2019) IPA recognises that the researcher and the subject share a world which is experienced differently. This is a concept Heidegger referred to as "intersubjectivity" (Smith et al., 2009)

IPA was considered a better fit for this study for two primary reasons. Firstly, in comparison to other qualitative analytical methods such as content or thematic analysis, it considers not only what the subject says but also, the language used to communicate that data (Braun & Clarke, 2013). Paramedics are known for expressive, sarcastic, and emotive language at times, and this is part of the cultural contextualisation for the survey responses (Charman, 2013; Furness et al., 2021; Reynolds, 2009). For example, in answering "What is the purpose of the regulation of paramedics?" three different respondents could state: 'Protection of the public,' 'Allegedly, protection of the public' or 'I'm told protection of the public.'

These three answers, from a content perspective, are essentially the same. They recognise protection of the public as a central tenant of health professional regulation. However, each is

expressed differently. The first suggests a factual answer. The second suggests the respondent does not believe the answer. The third suggests the respondent does not know or does not understand how regulation protects the public but is repeating an answer heard elsewhere. Each response gives a clue as to how this participant interacts with the concept of regulation. Secondly, regulation is a conceptual, legal and practical framework involved in the governance of health professionals and therefore a fixed entity (Irvine, 2016). However, the way each respondent engages with the concept of regulation will be unique to that person based on the information they have received, their worldview, and the context they engage in with reference to regulation.

The process of data analysis involved six steps outlined by Smith (2009). The preliminary phase of analysis primarily looked for content during an initial reading and re-reading. This stage allowed the researchers to immerse themselves in the data. In the next stage, the data were initially coded looking at three criteria. The first was a descriptive review of the content of the response, that is, what was being said. Second was a linguistic analysis of the response, essentially, how the response was expressed from a semantic and tonal point of view. This helps establish the intent of the respondent. The third aspect was noting conceptual element of the response, that is, what underpinning concepts anchored the response. The next phase of analysis involved the synthesis of themes and trends from the previous stages of analysis. This is an interpretation of what the participant is trying to say through their statements. In the fourth stage, we looked for commonality in the emerging themes. In the case of this study examples of themes could include cost (in different forms) to the practitioner or benefits to the public taken from the examples given by participants. In the fifth stage the results for that participant are bracketed in anticipation of the analysis of the next response. Finally, when all data are analysed, communalities in themes across each participant are synthesised to consider broader views across the cohort. These themes are both conceptual and look at the way different cohorts of respondents' express ideas. This not only involved themes around the content of the responses but themes around how the responses were conveyed in the data. Smith (2009)

suggests that in larger samples sizes, the recurrence of themes is measured and this was undertaken by establishing key thematic areas and re-analysing against a matrix of themes. Themes are then interpreted against the context of responses to establish a more holistic view of the phenomena explored.

Results

Responses and Demographics

The survey received 492 participant responses, of which, 419 (85%) were fully completed. Partially completed responses (n=73) were excluded from analysis (Hertel, 1976). Participant age and gender distribution was relatively consistent with the workforce (based on comparison with registrant data) with slightly higher representation within the 45-55-year-old bracket and slightly lower representation of paramedics under 30 years of age. All Australian jurisdictions were represented. Relative to their share of the paramedic workforce, New South Wales was slightly overrepresented, Victoria and Queensland were underrepresented, and the other jurisdictions were proportional. Jurisdiction of practice, and gender are outlined in Table 7.3.

Table 7.3: Respondents by jurisdiction.

Jurisdiction	Number in Survey	% Of Survey	% Of Workforce
Australian Capital Territory	17	4%	1.5%
New South Wales	146	35%	25.4%
Northern Territory	5	1%	1.1%
Queensland	77	18%	26.4%
South Australia	38	9%	7.1%
Tasmania	23	5%	2.6%
Victoria	84	20%	29.2%
Western Australia	29	7%	5.9%

The PBA's September 2019 Registrant Data Table reporting 17,992 registered paramedics was used for workforce comparison (Paramedicine Board of Australia, 2019b). While these data

postdate the survey by 9 months, PBA estimates prior to participation day proved inaccurate with more registrants than expected. Equally only around 60% of registration applications had been processed on participation day (10,674 paramedics had been registered at this time) due to the number and complexity of applications. This rendered the December 2018 registrant data incomplete. As such, while the September 2019 registrant data does include a small number of new registrants who were not present in the profession in December 2018, it is more likely to be a more accurate snapshot of the workforce on participation day.

Reporting the Data

IPA is a joint construct of the researchers and the participants. As such, themes and patterns are interpretive. While the researcher may attempt to bracket the interpretation, it is still informed by both their conceptualisation of the data and knowledge of the phenomena. Responses are informed generally by an overall view of registration and regulation as a concept. The quantitative data from this survey found 25.5% of respondents had a negative view of regulation and 73.1% had a neutral or positive view (1.7% were undecided) (Reed, 2021). Generally, these broad trend themes follow through into the qualitative data. There was also a small cohort who made statements which did not address the survey questions but rather took the opportunity to make statements of the participant's view on registration. These responses were reported as effectively as possible within the framework of the analysis.

While the number of responses produced a wide range of nuanced views on professional regulation of paramedics, four major areas of discussion emerged. Two of these were inherently positive and supportive of regulation for different reasons, and two were inherently critical of regulation. These themes also reflect the worldview from which respondents may be viewing professional regulation as a phenomenon and their sense of engagement with it.

Registration as a Safety Mechanism

Patient safety or the safety of the community was a common theme, reflecting the primary purpose of health professional regulation (Irvine, 2016). Patient safety was also strongly linked to title protection and the ability to establish a clear process of entry to the profession mediated by a body (the PBA) representative of the profession. Some argued that the increased professionalisation of paramedicine and the greater independence of practitioners required a safeguard for the community as the scopes and roles of paramedics expand.

> *Principally for protection of the community. Paramedic practice has evolved extensively since it first commenced, the skills knowledge and experience of paramedics is now such that they provide assessment, advice, critical treatment interventions, anaesthesia, and discharge advice. In more than 30% of emergency ambulance cases there is no contact with another health providers other than the paramedics. The community has a right to expect that this workforce is safe and competent.*
>
> *– Participant 17*

Many respondents linked safety to accountability of practitioners and standardisation of the profession. This was often expressed as a desire to not only better align the private and public sectors, but also to create greater harmony between the clinical governance and practice between different jurisdictions. This theme followed through from the question about the rationale for registration to the questions about the impact of registration. The issue of accountability was a good example of an area where worldview and perception played a large part in how respondents saw the issue. Most participants saw accountability as a positive element which would help ensure good practice. When asked about the individual impact of registration, some felt regulation provided no imposition on them because their practice was already of a high standard, for example: ‘It will not change the way I practice in as much as patient care, confidentiality and my approach to patient advocacy.’ Many of those commenting

on accountability also saw it is a way to 'clean up' the profession or remove poor practitioners from the profession – which was then linked to community safety. Some practitioners reported that the increased accountability would help them ensure they were practicing optimally and encourage more education. There was a sense in many answers that some paramedics were frustrated by those seen as not meeting their professional obligations.

> *I think we will be more individually accountable as a registered profession, more so than we are now. If you are safe and thorough with your practice of patient treatment nothing much will change for you. – Participant 33*

> *Registration will have an effect on the complaints process with complaints going to an external agency rather than being handled by the employer. This will ensure investigations make unbiased decisions focused on patient care and patient safety. – Participant 80*

Registration as an Enabling Factor for the Profession

Many respondents looked at the impact of registration inwardly on the profession and practitioners rather than on its impact on the community or patients. Many saw registration as an enabling factor which would lead to greater growth of the profession. Some considered that professionalisation would be a result of regulation where regulation would create greater equity with more established professions such as medicine, nursing, and physiotherapy.

The concept of standardisation was raised in several ways. Some noted that there would be clear national standards on who could practice under the title 'Paramedic.' The history of jurisdictional governance was seen as a siloing factor within the profession with each statutory provider having a unique governance system (Colbeck & Maria, 2018). It was hoped that registration would create more continuity in clinical practice between different areas by developing elements of shared clinical governance or at least common practice guidelines as is the case in the UK or Ireland (Gregory, 2013; Knox & Batt, 2018).

Employment opportunities and workforce mobility were another area of commentary. Most responses referenced registration as an enabling factor to paramedics practicing in a wider range of environments and roles. Respondents seemed hopeful that regulation would allow paramedics to be recognised as having value in the health system. Respondents felt that having a wide range of practice options would both provide more career pathways for paramedics and especially allow people to move out of (or to and from) traditional ambulance services. Recent research suggests that as paramedics become more independent, for both reasons of career longevity and progression they are increasingly looking for wider opportunities than traditional ambulance emergency response work (Newton et al., 2020). Respondents reported that their quality of care and career options would increase because of additional education requirements and the responsibility of maintaining good practice.

> *Employment opportunities outside 'traditional' Paramedic roles will become available, bolstering the medical provision industry in both private and public practice. This can help alleviate pressures on health systems. – Participant 238*

Registration as Subjugation of the Practitioner

The rationale for registration from those with a more negative or cynical view produced an equally diverse range of responses. There was a strong view that the purpose of regulation was to extract revenue from practitioners. There was a common reference to “wage theft” and “money grab” which occurred in several responses. The cost of registration was also considered by many to be an unfair impost on paramedics. This was the primary topic of comments around negative impacts on practitioners and were largely discussed at an individual level rather than a professional level. While most comments focussed on the individual financial cost to practitioners, some looked at other costs, such as the financial cost of education, cost in reduced wages due to an oversupply of workforce or privatisation or social costs such as loss of time with family meeting registration conditions.

> *A financial disadvantage plus Paramedics will be less likely to perform low acuity secondary transport options for fear of a possible negative outcome which may see them before a board. This will translate to more hospital presentations and a higher cost to the taxpayer. – Participant 194*

For this group, the language around the cost was reflective of a fee being extracted from respondents which would have negative consequences for their lives. Some mentioned the proximity of participation day to Christmas, for example: 'great timing on single income families 24 days before Christmas here is a $500 fee to do your job merry Christmas kids' (Participant 125). There was again a strong sense that registration fees were somehow a wage reduction or liability: 'A financial loss, both my wife and I are Paramedics, a complete financial loss at this point'(Participant 194). Similar concern was expressed over the cost and effort of compliance with registration standards, especially the Continuing Professional Development standard. Many raised that this has traditionally been an employer responsibility and as a result, paramedics would experience a deterioration in quality of life or work/life balance from needing to meet these requirements.

> *It's a wage decrease. Having to spend one's own wage to be accredited for a position that doesn't need to be registered is a joke. Add to this the ongoing personal professional development that will now be required and come at a monetary cost and personal time cost! – Participant 329*

This theme overlapped with another strong theme which was political or governmental agendas. There were several references to AHPRA using regulation as a way of extracting income. Likewise, the university sector and the professional bodies were also seen as being complicit in a conspiracy to create new costs for paramedics.

> *Thousands of university graduates every year. Forcing them to pay further $1000s of dollars each year in registration and its associated cost, whilst competing for very few jobs. Someone is making a ridiculous amount of money. At no perceivable benefit to paramedics. Seems like an easy way for state services to sell paramedics down the river. – Participant 212*

Other responses suggest that the aim of regulation is to shift blame from employers to paramedics. Some argued that having a regulator, considered by some respondents to be on the side of employers, removes industrial protection from paramedics as unions are unable to represent them before the regulator. There was also a smaller group of responses that suggests that registration plays to the hubris of paramedics and that the rationale for introducing regulations was to support the egos of members of the paramedicine establishment.

> *The drive to registration was driven by an inferiority complex that made paramedics feel as if they were not medical professionals deserving of registration. The main promoters of registration were within the professional bodies of paramedics and those opposed to it were concentrated in management of ambulance services. This is an odd situation as the registration process will hand managers a major weapon in imposing discipline on paramedics and it is a weapon that the industrial organisations will be powerless to control. – Participant 300*

While those with more positive views saw accountability as a protective mechanism, some saw accountability as a tool to be used against paramedics with one respondent describing registration as a 'new era of McCarthyism.' This group felt that accountability would be used to subvert workplace disciplinary practices and punish or oppress paramedics. There seemed to be significant concern about the potential for paramedics to receive punitive sanctions for frivolous or vexatious complaints with some suggesting the number of complaints would increase.

Likewise, registration was seen by some as placing additional responsibility and burdens on paramedics they had not previously had, especially in the context of meeting perceived bureaucratic requirements.

> *Higher probability for the general public to make an unjust complaint cause quite a lot of consternation for the practitioner who may otherwise have provided an exemplary level of treatment. – Participant 189*

> *Services will continue to push paramedics harder and harder, but they will now be able to throw the individual paramedics to the wolves and absolve themselves of responsibility when things go wrong. – Participant 257*

Most paramedics with a more sceptical view of accountability believed that the new complaints handling framework would be biased against paramedics and allow untrue or vexatious complaints to have negative impacts. Some expressed significant concern about their career and employment safety. One respondent went as far as to say that their physical safety would be threatened by registration.

> *I am concerned for my family's safety (and to a lesser extent mine, but you always worry about your kids more don't you?). I have spent my life making sure to not leave an easy to find digital presence, our name isn't in the phone book etc. The response when I raised my concerns? Well, why don't you change your name? I simply do not understand why we need to have our postcodes published on a publicly searchable database. All this white ribbon stuff, and yet there is seen to be no issue with such a database. – Participant 102*

Registration as a Complex Bureaucratic Process

While some respondents view registration in a more philosophically positive or negative lens, others commented on the complexity of registration as a bureaucratic process to navigate. In a multiple-choice question, K4, which asked how effectively the PBA and AHPRA has disseminated information about registration, 45% of respondents felt information had been poorly disseminated (Reed et al., 2021). The associated qualitative question (K5), which asked what aspects of regulation respondents experienced difficulty finding information on, tended to receive more single word/list-type answers than other questions which encouraged greater prose and explanation. In most cases answers could not be interpreted as 'positive' or 'negative' but were more content focused reflecting the areas of information respondents felt it challenging to receive information about. The largest area of concern was the process of registration. As this was a new experience for most paramedics, and initial registration involved a lengthy application process, there was concern about the waiting time, how to answer certain questions, and how the process overall operated. Likewise, different elements of the application process, reflecting different registration standards, also caused concern. Foremost was the English language requirement. There was a strong theme around practitioners who were schooled and raised in English-speaking countries needing to prove their English language competency (often countries such as Ireland, the United Kingdom and South Africa). Many reported ambiguities around the standard and the requirement to report primary and secondary schooling. The criminal history checks were repeatedly mentioned. There was often an argument from immigrants that they had undertaken extensive criminal record checks and English language assessment as part of the immigration process which had to be repeated for registration. Likewise, there was uncertainty about what types of criminal record issues (for example traffic offences) and what types of employment-based complaints were disclosable. In the same vein, were concerns over the way complaints would be handled in the new regulatory scheme – both retrospectively in terms of reporting past complaints and the management of future complaints. While respondents seemed to understand the function of the PBA as a regulator and arbiter of complaints, there was a lack of clarity reported on issues such as the level of complaint that would trigger an investigation or how the complaint would be handled or resolved.

> *The cost and need for background checks outside Australia where workers have been employed without incidence for an extensive period of time. E.g., A paramedic may have been employed for 10+ years in Australia, be a citizen and is required to get multiple O/S [overseas] background checks at great cost due to a couple years travelling abroad after school studies many years prior. – Participant 276*

A small number of respondents raised the issue of the implications for paramedics when 'off duty.' Prior to the introduction of regulation, many paramedic employers considered their staff as paramedics only when 'on duty,' that is, when operating under the governance and credentialing of the employer. Registration now means paramedics are health practitioners at any time while they are registered, regardless of employment status, and therefore required to meet regulatory standards of conduct and action. This led to confusion over the status of paramedics if they were not at work for a paramedic employer but engaged in some type of clinical care, even as a bystander at an incident. There was equal confusion over the need to hold insurance, especially for those who had only one paramedic employer.

The grandparenting process was reported to cause confusion. There was concern over which grandparenting pathway paramedics should choose, especially those outside the statutory ambulance services. There was also mention of changes in the grandparenting arrangements, particularly the addition of supervised practice, to one of the grandparenting options. Some respondents suggested that the grandparenting pathways were overly complex and would disproportionately impact paramedics that were working for non-statutory employers either through the lack of resources available to them or a perceived structural bias in the scheme towards statutory organisations.

Another theme which emerged was questioning the validity and purpose of regulation. Primarily was the question of how the scheme would benefit practitioners. Additionally, several respondents outlined concerns over the structure of the scheme and the PBA. Connected with this theme were questions over how the registration fees were used and how fees were calculated. However, while posed, these questions were often accompanied by commentary, for example,'Apart from "administrative" costs what does my registration fee actually go towards apart from a government payday ripping off their employees'(Participant 184). While many practitioners believed that there would be little impact on their practice as it was already of a safe and ethical standard, an alternative view reported there would be no impact on practice but an increased administrative load because there was no benefit to the practitioner: 'No change to the way I practice, just a whole load of additional crap to worry about'(Participant 256).

Discussion

Worldviews about Regulation

Within the context of the responses, there appeared several views of regulation based around different perceptions of the role, purpose, and impact of regulation. The first group saw the regulation as a largely positive concept with the benefits flowing towards the community. This was reflected in responses where themes reflect accountability, public safety, and improved quality of care. This group saw regulation as having positive effects on control of entry to the profession and ensuring that the standard of care by practitioners is high. A subset of these practitioners specifically discussed the tension between their practice, which they consider ethical, safe, and person-centred, with the practice of others which they considered contrary to the standards and ethics of paramedicine. Discussion of perceived sub-standard performance by others not only raised questions about perceptions of other practitioners but were often expressed in language of concern and frustration.

> *I detest paramedics who treat patients poorly and are lazy, without the patient's best interest at heart. If registration changes other paramedics like these people, making them more accountable, this is enough personal benefit for myself from registration.* – *Participant 28*

The second group of respondents perceived regulation as a positive development but focused more on the impacts to practitioners. Common elements raised were workforce portability, expanded job and role opportunities, expanded education and scope, and recognition by other professions and to some extent, wage reform. This cohort saw registration as an enabling and empowering factor to the development and advancement of the individual practitioner. While there were two distinct views from those who see registration positively, these views are not entirely dichotomous. Many responses overlapped to some degree which reflected the individuality of each participant's view of the purpose of regulation. Professional regulation is fundamentally about safety and accountability (Irvine, 2016). Accountability, or as Greenwood refers to it, 'community sanction' (Greenwood, 1957), is part of the maturity to define an occupation as a profession (Cruess & Cruess, 2016; Reed, 2019). Those who look at regulation from a more practitioner-centred lens recognise that historically, status of a profession is linked to characteristics supported by regulation, namely: formalised education (especially through the university sector), exclusivity of membership (brought by title protection) and autonomy (supported through professional regulation) (Freidson, 1994). However, status is related to the evolution of the profession and its relationship with society, (which is often the trigger for regulation) rather than being caused by it (Reed, 2019).

The third cohort were those who decry and disparage regulation. This cohort was almost exclusively focused on the practitioner at an individual level. There were few arguments within the responses suggesting that regulation is detrimental to the public. The language of this cohort was much more emotive than that of the first two. While the pro-regulation cohorts offered

opinion and commentary, it tended to be done with a pragmatic and mostly unemotive tone. Conversely the language of dissent was often sarcastic, angry, dismissive, and in some cases vulgar. There is a tendency to speak in truisms or present the language of oppression, disenfranchisement, and conspiracy, for example: '[the reason for paramedics becoming registered is] to exert ever more control and surveillance on members of the public.'

The third group's worldview might have been influenced by the tension between the increasing requirements of paramedicine as a health profession and its traditional identity as an emergency service. McCann & Granter describe how paramedicine has moved from a paradigm of a working-class occupation with a culture built around heroism and an emphasis on individual agency to one where paramedics are now highly educated and operate in complex systems of accountability and practice (McCann & Granter, 2019). Equally, Wankhede and Brinkman found that many paramedics see workplace issues and change from a local point of view and harbour an inherent tension with more centralised policy or direction (Wankhade & Brinkman, 2014). Likewise, perceptions that change is driven from an "Ivory Tower" of academic, organisational or government policy creates a sense of disenfranchisement with some members of the occupational group (Wankhade et al., 2015). McCann et al (2013) noted that the work experience of paramedics may include a perception they were operating in a low-trust environment typified by remote monitoring of work (such as vehicle locators) and fear of adverse consequences from making decisions incorrectly or receiving complaints. McCann (2013) suggests this is an occupational feature which differentiates some paramedicine work from other autonomous professions. Likewise, there may be issues with professional identity dissonance and burn out which lead to more negative worldviews around workplace-related issues (Donnelly et al., 2015).

The fourth group, those concerned about the bureaucracy of the scheme, were likely influenced by similar psychology as the third group but consider the scheme more of a logistical nuisance rather than being philosophically opposed to being regulated. McCann & Granter discuss the impact of New Public Management in recent decades on practitioners including an increasing level of micromanagement (McCann & Granter, 2019). This has increased pushback against bureaucratic practices in areas like paramedicine.

There was an existential element to the introduction of regulation where practitioners held significant concerns over engaging with a new entry-to-practice model, especially given that until registration, use of the term "paramedic" was largely based on self-identification rather than any consistent set of criteria. Even some who worked in established statutory services still saw this as a potential barrier to their continued occupational identity and, at least, a significant bureaucratic process to retain something they already had. Likewise, those employed outside the statutory agencies often held additional anxiety over whether they would be included or excluded from the new community of practice due to perceived administrative requirements. Not every respondent fits wholly within these four cohorts. There were those who were largely unsure, cautious, or conditionally supportive. What this broad range of responses and views shows is the diversity of the paramedicine community culturally. In some ways, the responses recognise previously discussed elements of paramedic culture.

Regulation and Misinformation/Misperceptions

Despite the elements of suspicion or disenfranchisement which may be established in paramedic culture, many of the negative statements or predictions made by participants are neither factual in terms of the actual operation of the scheme nor have occurred as predicted. For example, many of those with negative views suggested that the new complaints system would cause widespread deregistration of paramedics due to vexatious, false, or trivial complaints. Data from the PBA shows that between 2018 and 2020, no paramedics were deregistered and 84.75% of closed complaints resulted in no action (Paramedicine Board of Australia, 2020, 2021a).

Likewise, numerous statements suggesting that vocationally trained paramedics would be forced to go to university, that statutory services would become privatised, or that large numbers of paramedics would exit the profession have simply not occurred (Moritz, 2019; Productivity Commision, 2021).

It is suggested there might be a lack of understanding of the nature of regulation within the profession. For those with a positive view, many consider the implications for practitioners but may not fully appreciate the central role of regulation as a patient safety mechanism (Freckelton, 2006; Irvine, 2016). For those with ambivalent or uncertain views, it would seem important for those practitioners to have a greater understanding of regulation to fully engage with their responsibilities within the scheme. Finally, for those who hold negative views, this study suggests there is potentially large-scale misinformation being disseminated which capitalises on pre-existing fears or beliefs. Alternatively, there might be a fundamental disengagement with members of the profession from the registration process which is reflected in their access to accurate information about the regulatory environment in which they operate.

Limitations and Future Research

The textual responses to the qualitative questions in this survey ranged from single words to multiple paragraphs. As a result, the level of sensitivity of the analysis of each piece of data was variable depending on the amount of information provided by the respondent. IPA is more commonly used for interpreting more traditional qualitative data such as interviews and focus groups which tend to have a small number of participants and longer sets of data. In this case, IPA was used to analyse 1582 individual qualitative data samples. The use of social media to recruit may have excluded some potential participants with poor social media engagement, however, multiple platforms were used to reach the widest range of participants.

This survey was followed by a companion survey in 2021 which will be reported on in early 2022. This will provide an opportunity to establish changes in views and perceptions of regulation following its introduction in Australia. However, this survey proved a useful tool for charting cultural change across the paramedic profession. These initial data can be used as a reference point for future studies into views of regulation, professionalism and identity.

Conclusion

The introduction of a regulatory framework for paramedicine in Australia was a significant watershed. Inclusion in the NRAS was the culmination of over 130 years of occupational evolution to a point where practitioners were sufficiently autonomous that a mechanism was required to balance this independence and capacity with safe and ethical practice. However, like any change, engagement and empowerment of the profession will be key to the successful adoption and operation of the regulatory framework. The diverse range of views on regulation suggests that there is still significant work to be done in ensuring that practitioners fully understand both the function and operation of the regulatory scheme. Resistance to the scheme, while perhaps expected in light of previous work around the change-adverse nature of paramedic culture, needs to be proactively addressed by the profession. Over time this will be done through evolving elements such as university education and changes in the philosophical and ethical norms of the profession. It is also plausible, that this is a symptom of wider cultural views and an example of how wider societal views amongst some paramedics (such as views around how the government should influence the workplace) intersect with a major structural element of the profession.

Regulation is an ethico-legal construct. It is a functional part of the governance of a profession to ensure accountability and engagement of that profession with its social contract. The responses within this survey demonstrated the breadth and depth of views which can be held about a topic from within a single profession; paramedicine is not a single homogenous culture,

but a series of sub-cultures who can hold widely varying views of the same topic. Looking forward, many saw registration is an endpoint on an occupational journey into professionalism. In reality, it is a steppingstone and part of a longer process of professionalisation. With the framework of regulation in place, it is now contingent on the profession and its members to continue to evolve and see the regulatory framework is a basis for future growth. As the profession continues to gain greater autonomy and capacity, it is important that a functional system of professional regulation provides confidence to the public that paramedics can navigate their growing role, scope, and profile in the community responsibly with the patient at the centre of their practice.

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Notes

"Regulation" and "registration" are used interchangeably in this article. Specifically, regulation is the conceptual framework of occupational control and registration is a specific mechanism, however in the Australian context they are largely synonymous with each other in practical usage especially in reference to the NRAS.

In understanding the profession of paramedicine, the recently released Global Definition of Paramedicine defines paramedicine as "a domain of practice and health profession that specialises across a range of settings including, but not limited to, emergency and primary care. Paramedics work in a variety of clinical settings such as emergency medical services, ambulance services, hospitals and clinics as well as non-clinical roles, such as education, leadership, public health and research. Paramedics possess complex knowledge and skills, a broad scope of practice and are an essential part of the healthcare system. Depending on location, paramedics may practice under medical direction or independently, often in unscheduled, unpredictable or dynamic settings." (Monash University Department of Paramedicine, 2021)

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SECTION III

STUDY 2 – INVESTIGATING THE CHANGE IN PERCEPTIONS OF REGULATION

"I cannot say whether things will get better if we change; what I can say is they must change if they are to get better."

Georg Christoph Lichtenberg

Chapter 8: Introduction to the Post-Registration Survey

Background

Within the broader PhD project, regulation and identity were viewed from a comparative approach, looking at how other jurisdictions with regulation experienced it. They were then examined by looking at the views of regulation at the time of participation day, and then prospectively to see if, within the time frame of the project, views of regulation had changed. This survey was deployed 31 months after the original study (July 2021) to allow for the process of regulation to commence and become operational. While there was some predictive value in the engagement with regulation in the data from the first study, ultimately those who wished to remain practicing in the profession were required to become registered and engage with the new system.

Purpose of the Study

The purpose of this study was to collect a new set of data at a point in time and compare it to data from the first survey. This comparison was designed to give insight into the actual engagement with regulation following implementation as opposed to what practitioners believed would happen prior to participation day. The data from this study seeks to explore the key question of this PhD study, that is, what are the impacts of regulation on professionalism and identity?

The initial pre-registration survey occurred prior to paramedics having an experience of regulation. As a result, the data from the first survey was speculative as it explored perceptions of regulation before it occurred. It required participants to imagine what the impacts of a proposed regulatory framework would be without a tangible reference of the experience of being regulated. As the post-registration survey occurred 31 months into the operations of the

scheme, participants now had a lived experience of the regulatory scheme. This meant that responses were informed by the actual impact of the scheme rather than being hypothetical.

Overall Study Methodology and Design

This study is of similar design with paired questions to match the 2018 pre-registration study. One notable difference in the second study was the parameters for recruitment. In the first study, where regulation had not been operationalised, the only way to identify a paramedic for participation was through self-identification (Reed et al., 2021). In the second study, participants needed to be registered with Ahpra to ensure they were practicing as paramedics and engaged with the NRAS. While this did give a much more tangible basis on which to ensure inclusion, it would have excluded a small number of original participants who self-identified as paramedics but were not deemed sufficiently qualified or suitable for the new scheme. While the two cohorts had different core criteria for participation in the study, data suggested that most participants in the first study had met the requirements or expected to meet the requirements of registration.

Another area of difference to the first study is that in the 31-month period between the two surveys, several thousand graduates and other applicants became registered paramedics and as such had only practiced in the regulated environment. As a result, questions asking for retrospective comparisons included an option for those who were newly registered and had never practiced unregistered. Likewise, several other structural changes were made following feedback and lessons from the first study. Most notably, the second section on reporting area of practice was redesigned, several additional questions were added that had been raised in the qualitative data resulting from the first study and a new question section about the experience of becoming registered was added.

Study Results

The results from the post-registration survey were analysed in a comparable way to the pre-registration survey. They are reported in the publications found in Chapters 9 and 10. In addition to the data analysis from the post-registration survey itself, comparisons are made between the pre-registration and post-registration survey results. Additional statistical tests were applied to the two data sets to test comparisons and determine if changes in data are significant.

Summary

The second survey is similar to the first and designed to view retrospectively the experience of regulation to create points of comparison to the expectations found in 2018. From this point of view, we can also consider what expectations and predictions were realistic and which ones did not occur. Additionally, consideration of how these views were developed in the study participants were discussed after comparison between pre- and post-registration responses.

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Chapter 9: An Exploration of Perceptions and Experiences of Australian Paramedics following the Introduction of Professional Regulation

This article is currently under review with the International Journal of Health Governance:

Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). An Exploration of Perceptions and Experiences of Australian Paramedics following the Introduction of Professional Regulation (Under Review)

This article reports the quantitative results from the 2021 post-registration survey.

Abstract

Purpose

Since 2018, Australian paramedics have been regulated under the National Registration and Accreditation Scheme (NRAS) for health practitioners. Established professions have been regulated in Australia for some time so there is limited knowledge of their entry to regulation. However, as Paramedicine has not been previously centrally regulated this provides a unique case study to explore the transition to regulated practice.

Design/Methodology/Approach

Australian paramedics undertook two surveys: pre- and post-introduction of registration. The first survey, in the month leading up to the commencement of registration (N=419) and second survey 31 months after registration (N=407). This paper presents the results of statistical analyses of the post-registration survey including comparisons to the pre-registration survey.

Findings

Although support for regulation has increased over time, there remains strong dissent consistent with 2018 levels. After 31 months of regulation, respondents reported increasing knowledge of the scheme and greater ease of navigation. Impacts of regulation are more nuanced and less polarised than in the first survey. Identity is again canvassed, and results suggest a shift from employment status and qualifications as key elements of identity to a community of practice and registration.

Originality

Paramedic's experience and understanding of rationale for registration is developing. Further support is needed to assist with the emerging professional identity and behaviours. Regulation is one of many occupational factors influencing professional identity and professionalism. Exploring the experience of regulation potentially assists regulators in better supporting practitioners and helps better understand professional evolution.

Keywords: Paramedic, Paramedicine, Regulation, Identity, Professionalisation

Introduction

Paramedicine is an emerging health profession which found its origins in the civil and military ambulance services of the mid to late 19th century. Since the early 1970's, paramedicine has evolved through education and the introduction of advanced clinical practices, especially during the last two decades (Newton et al. 2020: Makrides et al. 2021). In Australia, this evolution has been substantial and has included transition to university pre-employment training, increased clinical scope, a wider diversity of roles, the establishment of a unique body of knowledge and greater autonomy in practice (Williams et al. 2012: Bell et al. 2021: Brooks et al. 2018). Additionally, paramedicine is increasingly taking control of its own work with paramedics routinely involved in clinical governance, research and establishing the practice of their peers (Brydges et al. 2022: O'Meara et al. 2018).

The work of the modern paramedic is vastly different to the practice of their forebears. Contemporary paramedicine is nuanced, evidence-based and increasingly interdisciplinary with a focus on person-centred care which addresses both clinical and social elements (Williams et al. 2021; Tavares et al. 2021; McCann et al. 2015). Paramedics commonly perform advanced clinical and diagnostic procedures, provide referrals to other health professionals, and develop collaborative care plans with patients (Makrides et al. 2021; O'Meara et al. 2017). Increased autonomy and risk however need to be balanced with mechanisms to ensure accountability and safety (Irvine 2016).

The Rationale to Regulate Paramedics in Australia

The need for regulation reflects the increased independence and scope of paramedics as health practitioners. From origins as basic first aiders with a mandate to transport the sick and injured to hospital, paramedics have evolved to a well-educated and autonomous group of clinicians (Newton et al. 2020: Moritz 2018: Brydges et al. 2022: McCann 2022). This highlights the continuous evolution of paramedics to meet the needs of the communities they serve, including

the prevalence of complex and chronic health and social conditions (Makrides et al. 2021: Cockrell et al. 2019). This evolution has exponentially propelled paramedicine down the occupational continuum towards professional status over the last half century. Paramedicine is an example of an emerging new professional framework of technical professionals who engage in highly specialised work primarily within an organisational setting and express their professional status through the highly complex work they do and their control of the quality of this work (Evetts 2011: Freidson 1988).

Regulation is a key mechanism in providing checks on professional power and ensuring the safety of the community. Regulation helps ensure uniform standards of practice and that paramedics meet responsibilities in their social contract with the communities they serve (Irvine 2016; Moritz 2019; Reed 2022). Likewise, self-regulatory frameworks have a role in establishing the community mandate of a profession to control their work and are thus linked to the professionalisation of the discipline (Brydges et al. 2022). The decision to include paramedics in Australia was made in 2015 by the Council of Australian Governments Health Council following a decade of lobbying by the profession and a significant risk assessment (Moritz 2019). The risk assessment conducted by the regulator recognised a range of challenges with paramedicine. Firstly, there were no uniform standards of entry to the profession and little protection of title. Secondly, paramedics were increasingly being employed in a range of new settings in private organisations that did not benefit from the same level of organisational governance resources as traditional statutory employers. Finally, paramedics had a high risk profile due to the wide range of interventions they undertook in environments outside of health facilities often with vulnerable patients (Western Australian Department of Health and Victorian Department of Health 2015).

Paramedics and their antecedents were largely unregulated for the first 130 years of practice in Australia, primarily due to a combination of the discipline's vocational origins and exclusive employment in a small number of statutory agencies until the late 1990's (hence relying on

organisational governance). Over the last decade, there has been significant interest in regulating paramedicine to provide accountability for the profession's growing autonomy and scope (Moritz 2018; Knox and Batt 2018; Reed et al. 2019). Self-regulation or self-regulatory frameworks have occurred not only in Australia but recently in New Zealand, and the Canadian provinces of Manitoba, Nova Scotia and Alberta. South Africa, the Canadian provinces of Saskatchewan and New Brunswick, Ireland and the United Kingdom adopted regulatory arrangements in the first decade of the 2000s (Knox and Batt 2018; Donaghy 2013; Bowles et al. 2017; O'Meara and Duthie 2018).

Many other health professions in Australia have been regulated for some time. Medicine was initially regulated in Australia in 1823, nursing has been regulated since the 1920's and other allied health professions, such as, physiotherapy have been regulated since the mid-20th century (Cummins 2003; Bryant 2001; Willis 1983). These regulatory systems were implemented before the academic or research interest in health professional regulation, therefore there is a paucity of research in health professionals' experience of transitioning into a regulatory environment. On 1 December 2018, paramedicine joined the National Registration and Accreditation Scheme (NRAS) for health practitioners becoming the fifteenth profession in this national regulatory framework (Moritz 2018). This represented a major change in the governance and regulation of the profession and gave a unique opportunity to study the transition of that profession and its members into a new regulatory framework. Paramedicine in Australia was now regulated by the Paramedicine Board of Australia as the self-regulatory body in a co-regulatory arrangement with the Australian Health Practitioner Regulation Agency – the government body responsible for the regulation of Australia's fifteen registered health professions.

Project and Research Questions

This study explores the experience of paramedics moving from a fundamentally unregulated profession (except for organisational governance) to one of self-regulation/co-regulation, on par

with other professions in the NRAS. While this change in regulatory framework was embraced by most paramedics and paramedic employers, there is a wide range of views from paramedics on the nature and function of regulation. The historical nature of paramedicine evolving from a vocationally educated, emergency service-focused occupation to one more aligned with other health professions means paramedicine occupies a unique transitional space sociologically (Brydges et al. 2022).

This research project seeks to investigate the intersection of regulation, professionalisation and identity for Australian paramedics. The impact of regulation on Australian paramedics was ultimately unknown and while regulation was seen as a key element of professionalisation, this study seeks to more effectively understand this relationship (Williams et al. 2012; Reed et al. 2021).

Paramedic perceptions of regulation were initially measured by a pre-registration survey in the month prior to "participation day" - the day paramedics became operational within the NRAS (Reed et al. 2021). The quantitative data from the 2018 pre-registration survey is reported in Reed et al. (2021) and likewise the qualitative data in Reed et al. (2022). This article reports on a 2021 follow up (post-registration) study which explores the perceptions of paramedics 31 months into their new regulatory environment. This article compares quantitative data from the two surveys to examine if the perceptions of regulation have evolved over the first two and a half years of the scheme and how these changes impact on professional identity and if the projects of being regulated reported from the first study align with the lived experience of regulation. The qualitative data are reported in another publication currently in press.

Methods

A mixed methods approach grounded in social constructivism framed the research design. Social constructivism considers that beliefs and knowledge are built on a complex set of influences and relationships (Keaton and Bodie, 2011). While positivism is a more common

epistemology associated with survey methodology, this survey seeks to explore perceptions and beliefs about being regulated. Social constructivism is well suited to exploring phenomena of this type as it recognises that individuals will have unique perspectives and experiences (Liamputtong, 2013). While this paper outlines a quantitative approach to the data from this survey, the qualitative treatment of the survey data is described in Reed, et al (2022) and Reed, et al. (2023)

Survey Deployment and Population

The post-registration survey was deployed using the Qualtrics platform and was available for six weeks in July and August of 2021. The survey was promoted through various social media platforms and through the Australasian College of Paramedicine, the professional body for paramedicine in Australia and New Zealand. Inclusion criterion consisted of paramedics currently registered in Australia as self-reported by participants and practicing primarily in Australia. The inclusion criteria for the pre-registration survey were identical, except that in the absence of registration participants were required to self-identify as paramedics. According to data from the Paramedicine Board of Australia (PBA), there were 21,492 registered paramedics at the time of the survey (Paramedicine Board of Australia, 2021b). The target sample size for this study was calculated at 378 with a confidence interval of 95% and a 5% margin for error.

Ethics and Consent

Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (Approval 2018/462). Upon commencing the survey, participants were provided with the text of a Participant Information Sheet which included instructions on how to withdraw from the study. Completed surveys were deemed to have consented. Incomplete surveys were discarded and considered to have withdrawn consent as a precaution.

Survey Questions

The post-registration survey was a follow up to the 2018 pre-registration survey. The initial survey was developed by the research team as there were no standard tools for measuring the experience of regulation. The original survey went through pilot testing prior with a convenience sample of paramedics who also provided feedback reports to the research team on survey design and usability prior to deployment in the initial 2018 survey round.

The post registration survey was based on the same design. The post-registration survey contained 26 research questions and 12 demographic questions. Nineteen of the research questions were follow up questions to the pre-registration survey to allow for data comparison between surveys. All demographic questions were repeated to allow for population comparison. The survey consisted of multiple choice and open text questions. The pre-registration survey data was reviewed separately for quality and survey usability and functional adjustments were made to the survey to improve question clarity and data quality. Following design changes, the post-registration survey was again piloted using a convenience sample of 18 paramedics to test the final questions and provide additional feedback. This survey data was not included in analysis although participants were able to participate in the public survey.

The post-registration survey was divided into several topic sections also used in the pre-registration survey. These topic sections were used to help group questions and signpost themes to participants. “Knowledge of Regulation” asked respondents about the accessibility of information about registration and their self-reported knowledge of key areas of regulation. “Perceptions of Regulation” explored respondents’ views of the effect of regulation on the profession and its stakeholders. Questions about the impact of registration focused on the respondents support of regulation and both the predicted and actual impacts it had on them. The “Identity” section considered how regulation intersected with professional identity and how paramedics construct their identity. The post-registration survey contained a new section, asking about the experience of becoming regulated and navigating the registration process.

Data Analysis

Survey data was exported to Microsoft Excel from Qualtrics for initial analysis including basic statistical calculations. SPSS was used for Chi-Squared tests of fit (where a single set of survey responses data is being analysed) and independence (where both sets of survey data are being compared or two populations are being compared within a single survey) (Swinscow and Campbell, 2002). These tests and cross tabulations were undertaken using IBM SPSS 27 statistical software.

Results

There were 407 completed entries received for the post-registration survey, a similar number to the pre-registration survey (419). An additional 203 incomplete entries, i.e., those missing any quantitative data were excluded from analysis (Hertel, 1976). Most excluded responses had less than 20% of the survey completed. This also occurred in the pre-registration survey and is likely a result of either connectivity issues or paramedics attempting to complete the survey while on duty and having to terminate the suvey due to responses or other unforeseen events. There was a higher rate of response from NSW and a lower response from Queensland and Victoria compared to their proportion of the registered paramedic workforce as reported by the PBA (this also occurred in the pre-registration survey). Responses from other states and territories align with their proportion of registered paramedics. Age and gender profiles largely matched the national PBA registrant data with a slight overrepresentation of males in the 35-54 age range (Paramedicine Board of Australia, 2021b). Demographics from the pre-registration survey have been previously reported by the authors and were also representative of the workforce as reported at the time (Reed et al., 2021). The demographic profile of the sample is shown in Table 9.1.

Table 9.1: Survey demographics pre- and post-registration survey

	POST-REGISTRATION (2021)			PRE-REGISTRATION (2018)		
	No. in Survey	% Of Survey	% Of Workforce	No. in Survey	% Of Survey	% Of Workforce
Jurisdiction						
Australian Capital Territory	8	2.0%	1.5%	17	4%	1.5%
New South Wales	176	43.2%	25.4%	146	35%	25.4%
Northern Territory	6	1.5%	0.9%	5	1%	1.1%
Queensland	81	19.9%	25.5%	77	18%	26.4%
South Australia	32	7.9%	6.5%	38	9%	7.1%
Tasmania	10	2.5%	2.8%	23	5%	2.6%
Victoria	64	15.7%	28.1%	84	20%	29.2%
Western Australia	30	7.4%	6.3%	29	7%	5.9%
Gender						
Male	230	56.5%	53.9%	283	67.5%	59.7%
Female	167	41.0%	46.1%	131	31.3%	40.2%
Other/Not Stated/ Inadequately described	10	2.5%	<0.1%	5	1.2%	0.1%
Age						
<25	27	6.6%	11.2%	20	4.8%	10.3%
25-34	141	34.6%	37.4%	130	31.1%	34.1%
35-44	110	27.0%	21.2%	105	25.1%	22.3%
45-54	90	22.1%	19.0%	120	28.7%	21.5%
55-64	54	13.3%	10.1%	40	9.6%	10.9%
>64	2	0.5%	1.1%	3	0.7%	1.0%

Knowledge of the Registration Scheme

Participants were asked to self-rate their knowledge of the scheme overall and several key components of regulation. Results were mixed in the post-registration survey data with participants feeling less knowledgeable overall compared with the pre-registration survey. However, respondents reported improved knowledge of the specific areas of registration standards and complaints handling. Results of the three knowledge topics are found in Table 9.2.

Table 9.2: Knowledge of the registration scheme

Topic	Year	I have no knowledge of it	I have a little knowledge of it	I have some knowledge of it	I have a good knowledge of it	I have an excellent knowledge of it
K1: Overall knowledge	2018 ^	4 (1.0%)	36 (8.6%)	159 (38.0%)	177 (42.2%)	43 (10.3%)
	2021	5 (1.2%)	52 (12.8%)	156 (38.3%)	165 (40.5%)	29 (7.1%)
K2: Knowledge of Registration Standards	2018 ^	20 (4.8%)	62 (14.8%)	152 (36.3%)	150 (35.8%)	35 (8.4%)
	2021	3 (0.74%)	54 (13.3%)	168 (41.3%)	153 (37.6%)	29 (7.1%)
K3: Knowledge of complaints handling	2018 ^	113 (27.0%)	121 (28.9%)	124 (29.6%)	52 (12.4%)	9 (2.1%)
	2021	58 (14.3%)	125 (30.7%)	146 (35.9%)	66 (16.2%)	12 (3.0%)
^ Data published in (Reed et al., 2021)						

Information was considered *hard* or *very hard* to access by 90 (21.2%) respondents, *neither hard nor easy* by 125 (30.7%) respondents and *easy* or *very easy* by 192 (37.2%) respondents. Key topics of concern were Continuing Professional Development (CPD) requirements (34), the registration process (23) registration standards (18) and complaints handling (16). While 53 (13%) respondents found registration had become more confusing, 228 (56%) indicated their level of understanding had not changed since the introduction of regulation and 126 (31%) indicated registration had become easier to understand ((X^2 (df=4, N=407) = 358.27, p=<0.001 where p was significant at <0.05).

Perceptions of the Registration Scheme

Participants reported their perceptions on several elements of regulation. Responses are outlined in Table 9.3. Perceptions of the impact of registration on patient safety remained largely unchanged since the pre-registration survey. On the question of the accountability of paramedics there was a small shift towards a view of neutrality with a decrease in the *substantially more accountable* response (from 223 [52.1%], in 2018 to 187 [48.1%] in 2021) and a rise in *no change* (from 78 [18.1%)] to 82 [21.1%]). Respondents equally showed a shift towards the centre of the scale on the questions of the fairness of complaints handling with a doubling of the response *no change* (46 [11%] to 69 [21%]), and a corresponding drop in those believing the system was *less fair* (66 [15.8%] to 26 [8%]).

Table 9.3: Perceptions of Registration

Topic	Year	Will / Has substantially decrease(d)#	Will / Has slightly decrease(d)#	No change	Will / Has slightly increase(d)#	Will /Has substantially increase(d)#	Insufficient information to decide
P1: Safety of patients	2018 ^	4 (1.0%)	5 (1.1%)	198 (47.4%)	102 (24.3%)	95 (22.7%)	15 (3.6%)
	2021*	4 (1.0%)	9 (2.3%)	158 (40.9%)	99 (25.6%)	97 (25.1%)	19 (4.9%)
P2: Accountability of paramedics	2018 ^	1 (0.2%)	4 (1.0%)	76 (18.1%)	104 (24.8%)	223 (53.2%)	11 (2.6%)
	2021*	3 (0.8%)	6 (1.5%)	82 (21.1%)	102 (26.2%)	187 (48.1%)	9 (2.3%)
P3: Fairness of complaints handling	2018^	55 (13.1%)	66 (15.8%)	46 (11.0%)	76 (18.1%)	91 (21.7%)	85 (20.3%)
	2021*	45 (13.8%)	26 (8.0%)	69 (21.2%)	56 (17.2%)	75 (23.1%)	54 (16.6%)
P4: Variety of job roles will change	2018 ^	20 (4.8%)	16 (3.8%)	130 (31.0%)	125 (29.8%)	105 (25.1%)	23 (5.5%)
	2021	15 (3.7%)	10 (2.5%)	112 (27.5%)	123 (30.2%)	124 (30.5%)	23 (5.7%)
P5: Scope of practice will change	2018 ^	10 (2.4%)	12 (2.9%)	231 (55.1%)	96 (22.2%)	36 (8.6%)	34 (8.1%)
	2021	6 (1.5%)	5 (1.2%)	146 (35.8%)	130 (31.9%)	101 (24.8%)	19 (4.7%)

In the 2021 survey, Questions P1 to P3 asked if these topics had changed since registration began. Questions P4 and P5 were still phrased prospectively in the same manner as the 2018 survey.
* In the 2021 data, 21,18 and 82 participants respectively were excluded from analysis of questions P1 to P3 as they indicated they did not have experience of previous systems to make a comparison on these questions. ^ Data published in (Reed et al., 2021)

Participants were asked whether they believed the variety of employment roles for paramedics would change. There was an increase in the responses *will slightly increase* and *will substantially increase*. The largest change was found in the question of whether the scope of paramedics would change with the response *will slightly increase* increasing from 96 (22.2%) to 130 (31.9%) and the response *will substantially increase* increasing almost three-fold from 39 (8.6%) to 101(24.8%) ((X^2 (df=5, N=826) = 63.09, p=<0.001 where p was significant at <0.05).

Support for Registration

There was an increase in support for registration compared to the pre-registration survey. These figures are shown in Table 9.4. Chi square analysis of these samples shows a significant change between the two surveys ((X^2 (df=5, N=826) = 16.658, p=0.005 where p was significant at <0.05). In the pre-registration survey university-educated (degree) paramedics were significantly more likely to support registration (69.5% positive support vs 44.5% positive support) and vocationally educated (diploma) paramedics were more likely to strongly oppose regulation (6.7% above mean) and less likely to strongly support regulation (7.9% below mean) ((X^2 (df=9, N=412) = 32.17, p<0.001 where p was significant at <0.05). This was still the case in the post-registration survey ((X^2 (df=9, N=403) = 22.83, p<0.001 where p was significant at <0.05), but with rises in support for both cohorts (73.8% positive support vs 55.6% positive support and the *strongly support* response for vocationally trained paramedics rising by 17.5%).

Table 9.4: Support for Regulation

Characteristic	Year	I am strongly unsupportive of paramedic registration.	I am slightly unsupportive of paramedic registration	I am neither supportive nor unsupportive of paramedic registration.	I am slightly supportive of paramedic registration.	I am strongly supportive of paramedic registration	I don't feel I have enough information to have an opinion.	Total	% Of total sample
Support by Initial Training Type									
Vocationally Trained	2018 ^	31 (17.9)	36 (20.8%)	26 (15.0%)	27 (15.6%)	50 (28.9%)	3 (1.7%)	173	41.3%
	2021	28 (18.5%)	15 (9.9%)	24 (15.9%)	14 (9.3%)	70 (46.4%)	0 (0.0%)	151	37.1%
University Trained	2018 ^	19 (7.7%)	21 (8.5%)	31 (12.6%)	49 (19.9%)	122 (49.6%)	4 (1.6%)	246	58.7%
	2021	20 (7.9%)	23 (9.1%)	19 (15.5%)	39 (15.5%)	147 (58.3%)	4 (1.6%)	252	61.9%
Support by Years of Practice *									
0-5 Years	2018 ^	4 (3.1%)	22 (17.3%	13 (10.2%)	26 (20.5%)	60 (47.2%)	2 (1.6%)	127	30.3%
	2021	8 (6.3%)	10 (7.8%)	12 (9.4%)	22 (17.2%)	74 (57%)	2 (1.6%)	128	31.4%
6-10 Years	2018 ^	10 (11.1%)	14 (15.6%)	17 (18.9%)	16 (17.9%)	30 (33.3%)	3 (3.3%)	90	21.5%
	2021	11 (12.9%)	9 (10.6%)	6 (7.1%)	14 (16.5%)	42 (49.4%)	3 (3.5%)	85	20.9%
11-20 Years	2018 ^	23 (20.5%)	10 (8.9%)	18 (16.1%)	23 (20.5%)	37 (33.0%)	1 (0.9%)	112	26.7%
	2021	14 (12.4%)	11 (9.7%)	17 (15.0%)	14 (12.4%)	57 (50.4%)	0 (0.0%)	113	27.8%
21+ Years	2018 ^	13 (14.9%)	12 (13.8%)	7 (8.0%)	10 (11.5%)	44 (50.6%)	1 (1.1%)	87	20.8%
	2021	15 (18.5%)	8 (9.9%)	7 (8.6%)	3 (3.7%)	48 (59.3%)	0 (0.0%)	81	19.9%
Overall	2018 ^	50 (11.7%)	57 (13.6%)	57 (13.6%)	76 (18.1%)	172 (41.1%)	7 (1.7%	419	100%
	2021	48 (11.8%)	38 (9.3%)	43 (10.6%)	53 (13.0%)	221 (54.3%)	4 (1.0%)	407	100%

^ Data published in (Reed et al., 2021) * Three responses from 2018 (0.7% of sample) was excluded from this analysis due to insufficient data.

In the pre-registration survey, the highest level of support for registration was in the 21+ years of practice group and the lowest level of support in the 11-20 years of service group ((X^2 (df=15, N=409) = 32.40, $p<0.001$ where p was significant at <0.05). This shifted in the post-registration survey. There were rises in strong opposition to registration in the 0-5, 6-10 and 21+ years of practice groups and a drop in the opposition in the 11-20 years of practice group. The correlation was still significant but less so than in the pre-registration survey ((X^2 (df=15, N=407) = 26.15, $p<0.036$ where p was significant at <0.05).

Paramedic Identity

Participants were asked to rate the importance of five aspects of paramedic identity*:* *professional registration, qualifications, employment as a paramedic, membership of a community of practice* and *scope of practice*. These areas were chosen as they represented key aspects of paramedic identity formation and were linked to paramedic culture (McCann, 2022; O'Meara, 2011). Paramedic identity has traditionally leaned heavily on scope of practice, employment and institutional identity (i.e., membership of an ambulance service) as key elements of identity formation, especially prior to registration (McCann et al., 2013). Responses are outlined in Table 9.5. Greater emphasis on the responses *professional registration* and *membership of a community of practice* were reported in the post registration survey compared to the pre-registration survey. In the pre-registration survey, 24% of respondents believed that registration would impact their paramedic identity. This rose to 35.9% in the post-registration survey.

Table 9.5: Aspects of Paramedic Identity

Aspect of Identity	Year	Not important to my sense of who I am as a paramedic	Slightly important to my sense of who I am as a paramedic	Somewhat important to my sense of who I am as a paramedic	Very important to my sense of who I am as a paramedic	Extremely important to my sense of who I am as a paramedic	Total
Professional registration	2018 ^	172 (41.1%)	52 (12.4%)	88 (21.0%)	73 (17.4%)	34 (8.1%)	419
	2021	122 (30.0%)	56 (13.8%)	79 (19.4%)	102 (25.1%)	48 (11.8%)	407
The qualification you obtained to be a paramedic	2018 ^	43 (10.3%)	29 (6.9%)	76 (18.1%)	155 (37.0%)	116 (27.7%)	419
	2021	27 (6.6%)	38 (9.3%)	82 (20.2%)	158 (38.8%)	102 (25.1%)	407
Being employed as a paramedic	2018 ^	18 (4.3%)	12 (2.9%)	53 (12.6%)	156 (37.2%)	180 (43.0%)	419
	2021	11 (2.7%)	16 (3.9%)	72 (17.7%)	139 (34.2%)	169 (41.5%)	407
Being part of a community of practitioners	2018 ^	69 (16.5%)	47 (11.2%)	114 (27.2%)	109 (26.0%)	80 (19.1%)	419
	2021	33 (8.1%)	49 (12.0%)	96 (23.6%)	151 (37.1%)	78 (19.2%)	407
Your scope of practice	2018 ^	29 (6.9%)	23 (5.5%)	78 (18.6%)	154 (36.8%)	135 (32.2%)	419
	2021	24 (5.9%)	29 (7.1%)	83 (20.4%)	151 (37.1%)	120 (29.5%)	407
^ Data published in (Reed et al., 2021)							

Experience of Registration

A new section in the post-registration study explored the experience of navigating the

registration processes. Nearly half (198, 48.5%) indicated they were granted registration through an approved or accepted qualification (i.e., a qualification considered commensurate with a fully qualified paramedic). A further 129 (31.7%) were granted registration through a grandparenting pathway (i.e., older qualifications, supervised practice, recognition of competency or a combination thereof). Graduates, those registered after participant date through the now primary University pathway, represented 79 (19.4%) of respondents.

Half of the participants reported that becoming registered was either somewhat *easy* (93, 22.9%) or *very easy* (107, 26.4%). Conversely, 21 (5.2%) participants found the process *very difficult* and 79 (19.5%) found it *somewhat difficult*. The remainder (106, 26.1%) the process *neither hard nor difficult*.

Some found meeting registration standards challenging. Meeting CPD requirements was *very difficult for* 18 participants (4.4%) and *somewhat difficult* for 104 (25.6%). CPD was considered *very easy* for 93 (22.9%) respondents, *somewhat easy* for 82 (20.1%) and neither *easy nor difficult* for the remaining 110 (27.0%). A similar experience was reported in meeting currency of practice requirements with half finding it *somewhat* or *very easy* (83, 20.8% and 123, 30.8% respectively), 110 (27.6%) finding it *neither easy nor hard*, and around a fifth finding it *somewhat difficult* (68, 17.0%) or *very difficult* (15, 3.8%).

Discussion

Change can be seen in a range of areas including support for the scheme, perceptions of the impact of the scheme and knowledge of the scheme. Compared to the pre-registration survey data, responses in the post-registration survey have become more nuanced as paramedics potentially come to terms with the multi-faceted nature of regulation. For example, participants may support the concept of regulation but have varying views on different elements of the scheme or its operation.

Knowledge of Registration

Responses about knowledge shifted away from the ends of the scale towards the centre. Decreases in the option *I have no knowledge* also suggest paramedics are becoming better educated about the regulatory environment in which they operate. It is also important to consider that paramedics have only experienced this professional regulatory framework for less than three years, so there is likely to be an adjustment period. Like all change, paramedics learn to adapt despite their fatigue or resistance to it (McCann, 2022).

Perceptions of Registration

In questions which involved perceptions of registration, the primary trend was a reduction in responses indicating respondents felt regulation would or has caused a slight reduction in that aspect (e.g., patient safety) and an increase in those believing there would be either no change or a slight or significant increase. There was a small reduction in those unable to offer an opinion suggesting that paramedics were better informed about registration or its impacts. Those answering "substantial decrease" remained constant. It is suggested that those holding this position have an entrenched opinion.

Similarly, to the questions about knowledge, this may suggest opinions about the outcomes of registration are not as tangible or clear as thought prior to regulation. It may also suggest the outcomes are not uniform across all situations and harder to make generalisations about.

Support for Registration

The consistency of a set of participants with strong views against registration suggests a subculture of paramedics which oppose regulation on a philosophical level. The reduction in those who slightly oppose or are neutral about registration may suggest a recognition that much of the concern about regulation initially held by some paramedics has not come to pass. There is an inherent tension between the autonomy of paramedics and the command-and-control paradigm of the organisations which traditionally have employed them. This potentially breeds

a subculture, who, while decrying the oppression of control, may be institutionalised in a way which causes challenges with accepting the framework of responsible autonomy (McCann, 2022).

In the pre-registration data, length of practice was a statistically significant factor, however with a general rise in the sample reporting strong support for regulation, this distinction is now less pronounced (Reed et al., 2021). The 2021 data revealed similar but slightly varied results. These can potentially be explained by respondents captured in the 11–20-year cohort in pre-registration moving into the 21+ year cohort in 2021, especially as the gains in the latter group appear like the losses in the former.

The cohort of paramedics opposing regulation warrant more investigation as there are likely to be a complex set of cultural and occupational issues underpinning them. Qualitative data from the first survey suggests this may be an extension of the inherent resistance to control, accountability and surveillance noted in some sub-cultures within the paramedic workforce (McCann et al. 2013, Reed et al. 2022). However, it is important to differentiate this cohort from those concerned about the impacts of an adverse event on their registration given the breadth of generalist practice of paramedics (McCann, 2022).

Paramedic Identity

Paramedics appear to value registration as a greater part of their professional identity in the post-registration data. For many they embrace the inherent autonomy of their day-to-day practice and see it as empowering (McCann 2022). Equally, graduate entrants to the profession have experienced increased university education on the role of registration on professional identity in the last five years. The increasing importance of being a member of a community of practice also reflects the shift in paramedicine from being a public safety-focused occupation to a health profession (Li et al., 2009). Registration may be impacting identity through the idea that becoming regulated is a recognition of the autonomy and status of the profession (Reed,

2022). The reduction in paramedic reliance on employment for identity formation may reflect both the diversity of paramedic employment and the fact paramedics increasingly have multiple employers. The constant element is that one is now employed because they are a paramedic, not a paramedic because they are employed (Eburn and Bendall, 2010).

Experience of Registration

The experience of the registration process was influenced by the pathway of registration. The majority of those who gained registration through an approved or accepted qualification reported the process was somewhat (21.8%) or very (30.5%) easy. Graduates equally considered the process easy 60.8% of the time. However only 37.7% of those utilising grandfathering pathways found registration easy and 33.1% reported it was difficult (more than twice the rate of graduates). This is likely due to the increased amount of evidence required for grandfathering pathways and the extended time to process.

Impact of this research

One of the key questions in the intersection of regulation and professionalisation is whether a profession is regulated because it is professionalising or vice versa. The likelihood is that these two elements of a profession are symbiotic and evolve in parallel. This study provides more information on the relationship between how people are regulated, how they construct their professional identity and how regulation contributes to that. This research suggests that paramedicine is a set of sub-cultures and rather than a homogenous cultural worldview. There is a range of views on regulation because each professional is experiencing regulation in a different way based on their cultural and professional expectations and circumstances. Regulation, itself, is a neutral phenomenon which is designed to provide boundaries and does not inherently advance or inhibit an individual practitioner. This study shows how a diverse professional population experiencing the same phenomenon at the same time, can hold vastly different views of its value and impact.

These finding highlight the importance of educating practitioners on the role and function of regulation and building a professional culture which see regulation for its utility. It is likely that through better understanding of how regulation integrates into professional practice, practitioners will better contextualise regulation within their professional experience. In turn, this will help moderate the expectations of the profession on the purpose and impact of regulation, which for many, may seem intangible in their day-to-day professional lives. The presence of a significant percentage of respondents with poor knowledge of the scene across both sames suggests that further education within the profession is warranted.

Limitations

The interval between the first and second surveys was 31 months. Evolution and change within a profession are often measured in decades so the change between these surveys is likely tempered by the limited time frame. While the pre- and post-registration populations have many similarities, the inclusion criteria were subtly different (self-reported identification as a paramedic vs formal registration). As a result, the two populations are not identical as a small number eligible in the pre-registration survey would not have achieved registration. However, due to the similarity in deployment methods between the two surveys, it is likely to have included some of the same individuals, although this cannot be confirmed as the surveys were anonymous. Likewise, this was an exploratory study so while the questions were piloted, they are not a validated tool for measurement.

Conclusion

The opportunity to study the transition of a health profession into a new regulatory framework is unique. Paramedics showed some initial hesitancy around registration; however, the post-registration survey data suggest it is now more widely accepted within the profession. Regardless, there is a small but significant element of the workforce which is strongly unsupportive of regulation. As paramedics gain further autonomy and diversity of practice, it is increasingly important there are guardrails around professional practice to ensure community safety. Continued study of the phenomenon will assist in guiding the profession's evolution and understanding of the relationship between health professions and regulation.

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Chapter 10: Perceptions of Australian Paramedics following the Introduction of Professional Regulation: A Qualitative Exploration.

This article is currently under review with the International Journal of Emergency Services:

Reed, B., Cowin, L., O'Meara, P. Metusela, C & Wilson, I. (2023). Perceptions of Australian Paramedics following the Introduction of Professional Regulation: A Qualitative Exploration (Under Review)

This article reports the qualitative results from the 2021 post-registration survey.

Abstract

Purpose

Paramedics became nationally registered in 2018 in Australia. Prior to this, there was no central regulation of the profession with reliance on organisational regulation through employers. As paramedics expanded their scope, role and range of employers, especially outside statutory agencies, there was an increasing need to engage in professional regulation. Regulation is more than a legal and bureaucratic framework. The way paramedics interact with their new regulatory environment impacts and is influenced by the professionalisation of the discipline. Regulation also redefines their positionality within the profession.

Design/Methodology/Approach

Two mixed-methods surveys were undertaken. , A pre-registration survey occurred in the month prior to regulation commencing (N=419) followed by the second survey 31 months later (N=407). This paper reports the analysis of qualitative data from the post-registration survey and provides comparison to the pre-registration survey which has previously been reported. Analysis was undertaken using Interpretive Phenomenological Analysis (IPA).

Findings

Themes from the pre-registration survey continued however became more nuanced. Participants broadly supported registration and saw it as empowering to the profession. Some supported registration but were disappointed by its outcomes, others rejected registration and saw it as divisive and oppressive.

Originality

Paramedics are beginning to come to terms with increasing professionalisation, of which regulation is one component. Changes can be seen in professional identity and engagement with professional practice; however, this is nascent and is deserving of additional research to track the profession as it continues to evolve.

Keywords: Paramedic, Paramedicine, Regulation, Identity, Professionalisation

Introduction

In the last half century, Paramedicine has experienced significant developments as a newly recognised health profession (Newton et al., 2020). As the scope, education and roles of paramedics have expanded, many jurisdictions have included Paramedicine in their health professional regulatory frameworks. This article reports qualitative data from the second of two surveys exploring perceptions of regulation by Australian paramedics and their experience of the introduction of a new regulatory framework. The results of the first (pre-registration) study have already been reported (Reed et al., 2022). This article also compares the 2021 post-registration survey findings with previously reported pre-registration data collected in 2018. The purpose of these surveys was to explore the perceptions and experience of Australian paramedics in engaging with a new regulatory system. The pre-registration survey focused primarily on the perceptions of paramedics regarding the impending regulatory scheme. The post-registration survey reported in this article also focusses on the lived experience of paramedics within the regulatory system over the first two and a half years of its operation.

The Origins and Development of Paramedicine

Most English-speaking countries trace paramedic services back to military and civilian ambulances of the 19th Century (Margolis, 2005). In these countries, the Anglo-American model (where paramedics practice independently under remote governance) is dominant. The late 1960s and 1970s brought significant changes in ambulance services following a series of critical reports in various countries (Brooks et al., 2018; Margolis, 2005). Changes included the introduction of formalised education, varying types of clinical governance, increases in scope and greater practitioner autonomy creating the modern concept of a paramedic (Brooks et al., 2018; O'Meara et al., 2017). Today, paramedics not only respond to emergencies, but support patients with chronic disease, provide referrals to other health professionals, engage in health promotion and work in a range of community and primary health care roles in diverse practice environments including palliative care, primary health care, community health and occupational

health (Acker et al., 2014; Cockrell et al., 2019; Long and Lord, 2021; O'Meara, 2014; O'Meara et al., 2017).

In Australia, New Zealand, and the United Kingdom, university degree education has become the entry-to-practice standard. Countries including Ireland, Canada, Finland, Malaysia, Taiwan, and Poland are in various stages of following suit. With more involvement from universities, there is an increased generation of evidence by the profession itself, underpinning its body of knowledge (Brooks et al., 2018; O'Meara et al., 2017). This evolution is driven by the nature of paramedicine as an adaptive discipline focused on problem-solving that organically addresses healthcare needs in the communities which paramedics serve (Newton et al., 2020).

The Professionalisation of Paramedicine and the Need for Regulation

As the autonomy of a profession grows, there is an increasing need to counterbalance professional power to ensure the safety of the community. This is the key function of regulation (Reed, 2019). Several regulatory mechanisms can be used to this end including title protection, entry to practice standards, codes of conduct and regulatory standards creating clear boundaries for practitioners (Collings-Hughes et al,. 2021; Irvine 2016; Moritz, 2019).

The National Registration and Accreditation Scheme (NRAS) is a self-regulatory model as accountability for setting standards for paramedicine rests with the Paramedicine Board of Australia (PBA) as the profession's representative. The PBA operates federally in co-regulation with the Australian Health Practitioner Regulation Agency (Ahpra), and in some states co-regulatory arrangements with state agencies (Moritz, 2019). This self-regulatory element allows paramedicine to moderate its role in the social contract with communities that paramedics serve (Reed, 2019). The PBA operates as a mediator of the social contract to both protect the public's interest and ensure paramedic engagement with the social contract. Self-regulation also has a key role in giving the profession control over its own work, both supporting its autonomy and undepinning the profession's social power (Brydges et al., 2022; Freidson, 2001;).

In some jurisdictions (e.g., Canada) self-regulation was preceded by levels of less autonomous profession-wide regulation, such as licensure (Brydges et al., 2022). Australian paramedics were essentially unregulated at a professional level prior to the NRAS. Previously, organisational governance was deemed a sufficient regulatory mechanism as until the 1990s all paramedics belonged to a handful of statutory agencies. However, in the last 25 years, paramedics have begun to operate with wider scopes, in a wider range of practice environments and increasingly in employment outside of statutory agencies (Acker et al,. 2014; Moritz, 2019). With these developments, organisational governance alone was no longer an appropriate mechanism of regulation (Eburn and Bendall, 2010; Moritz, 2019).

The Impact of Regulation on Practitioners

Health professional regulation has been explored from legal and professional perspectives, however little work exists on the experience of practitioners entering and navigating regulatory frameworks. Most regulated health professions have been so for some time. Medicine was first regulated as early as 1421 with legislation regarding medical practice emerging in the 19th century (Roberts, 2009; Willis, 1983). The late 19th century and early 20th century saw regulation in most Western countries for Pharmacy, Dentistry and Nursing (Hattingh et al., 2007; Pietsch, 2016; Willis, 1983). Paramedicine entered the NRAS for Health Practitioners in Australia in late 2018 becoming the scheme's fifteenth regulated profession following transition of existing regulated professions to the scheme in 2010 (Moritz, 2019).

Examining the Impact of Regulation

A change in a regulatory system is a significant professional change. Previous authors have highlighted that paramedics can be change resistant, or at least change-fatigued, due to ongoing and rapid evolution experienced by the profession in recent years (McCann, 2022). Paramedicine is not a single culture but rather a number of subcultures influenced by local environments and external factors (McCann, 2022; Wankhade, 2012). How paramedics perceive

the regulatory system is largely influenced by factors including generational issues, educational background, local and personal cultural influences, political environment and workplace environment.

As paramedics in Australia entered their new regulatory framework, this inevitably created discussion about the position of paramedicine as a profession. Paramedicine has previously been examined against several models and definitions of professionalisation, notably Greenwood's attribute framework, Freidson's theories of professional autonomy and Wilensky's process of professionalisation (Freidson 2001; Greenwood, 1966; McCann et al., 2013; Reed et al., 2019; Williams et al., 2012). Self-regulation is inherently linked to professionalisation and professional autonomy and control (Brydges et al., 2022; Reed, 2019). It is argued that regulation allows the profession to move further on the occupational continuum of professionalisation and creates the framework for safe growth and evolution of the profession (Eburn and Bendall, 2010).

This study seeks to examine impacts of regulation on the professionalisation and identity of paramedics. The perception of impact is likely to vary based on the unique worldview of each paramedic, however some wider professional cultural elements will be at play linked to the history and progression of the profession (McCann, 2022). It is important to examine if these perceptions change over time in tandem with other elements of professional evolution.

Methods

Methodology

Commonly, surveys are developed based on a positivist or post-positivist methodology (Groves et al., 2009). However, as this study explores perceptions and views of participants, it is grounded in Social Constructivism, as these perceptions will be coloured by various social and environmental factors and the worldview of participants (Keaton and Bodie, 2011). In the pre-

registration survey, undertaken the month before participation day (the day registration came into force), it was clear that there was a myriad of factors which provided a diverse range of views about impending regulation (Reed et al., 2022). The surveys approach registration from a phenomenological perspective, as the principle aim of the project is to explore the lived experience of paramedics engaging with the regulatory framework. Hermeneutic Phenomenology provides the basis of the design and data analysis. Primarily associated as an ontological approach with Martin Heidegger and Max Weber, Hermeneutics considers that to understand the experience of being (or Dasein), one needs to consider the interpretation of being, the hermeneutic. Hermeneutics supposes a relativist ontology recognising that truth to each individual is dependent on their worldview and thus aligns with the social constructivist approach to this study (Burkholder and Burbank 2019).

Data analysis was undertaken using Interpretive Phenomenological Analysis (IPA). IPA is a hermeneutic-based analysis model which recognises the double hermeneutic principle, that is, the researcher making sense of the participant making sense of their world. When using IPA, interpretation of the phenomena is a joint construct of researcher and participant (Smith 2009). IPA addresses the complexity of interpreting the subject's view of their experience and their sense (and construction) of truth (Smith 2009). Inherently with a study of this type, the researcher is interpreting the phenomena with a different set of resources and viewpoints than the participant (Smith 2009, Braun and Clarke 2013). While bracketing prior conceptions is common for phenomenological researchers (Burkholder and Burbank 2019), IPA recognises that researcher and subject occupy a shared world which is differently experienced and interpreted. Heidegger referred to this as "intersubjectivity" (Smith 2009). IPA was also beneficial in this study in that the analysis of the data relied heavily on the interpretation of language (Braun and Clarke 2013, Reed et al. 2022). Paramedic language has traditionally been colourful, emotive and often containing many elements of an occupational language or "cant" which is critical in interpreting their worldview and perceptions of phenomena (Furness et al. 2021, Reynolds 2009).

IPA was chosen because of this element of language and the fact the researcher was a paramedic who was familiar with this occupational and cultural language. IPA was considered preferable over other qualitative data analysis modalities such as thematic analysis and narrative analysis. It was critical in this study to not only consider what was said but how it was said. The IPA process outlined by Smith (2009) provides this capacity.

Survey Design

Multiple data collection tools were utilised in this survey including multiple choice questions (MCQs), matrix multiple choice questions and free text questions. The survey was deployed utilising the Qualtrics platform identically to the pre-registration survey (Reed et al., 2021; Reed et al., 2022). Social media was used to promote the survey by both researchers and the paramedicine professional body. Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (Approval 2018/462). The survey was open for 47 days in July and August of 2021. On commencing the survey, participants were presented with a Participant Information Sheet outlining study information and consent (including how to withdraw from the study). The survey consisted of twenty-six survey questions plus twelve demographic questions. Questions were divided into six sections: knowledge of regulation (7 questions), perceptions of regulation (8 questions), impact of registration (5 questions), concepts of identity (5 questions), experience of registration (4 questions – new in 2021) and the demographic section.

The qualitative component of the survey comes from five free text questions:

- ‘Why do you think paramedics were registered under the National Registration and Accreditation Scheme for health professions?’
- ‘Were there any elements of registration that you have found it challenging to get clear answers on or remain unclear to you?’

- 'What do you think the effects of registration on the profession of paramedicine have been so far?'
- 'What do you think the effects of registration on the profession of paramedicine will be in the future?'
- 'What do you think the impacts of registration are on you personally as a health practitioner?'

The aim of the qualitative questions was to elicit more detailed and nuanced information about the lived experience of paramedics as well as understanding the rationales underpinning quantitative data. For example, quantitative data explores how many paramedics support regulation. The qualitative questions explore why this is the case and how regulation impacts the paramedic to form this view.

Population

The PBA tracks paramedic registration numbers. The report immediately prior to survey deployment indicated 21492 paramedics were registered in Australia in June 2021 (Paramedicine Board of Australia, 2021b). Inclusion criteria for this survey were that participants principally practiced in Australia and were registered through Ahpra. For the quantitative component, a sample size of 387 was calculated based on the population of registered paramedics and using a confidence level of 95% and a confidence interval of .05.

Data Analysis

Free text data was downloaded into Microsoft Excel for manual coding. Data analysis followed the six stages of IPA outlined by Smith et al. (2009) beginning with an overall reading of the text. The second stage considered three elements of the participant's response: The first was to describe the content. The second considered linguistic elements of the response including semantics and tone. Finally, was a conceptual analysis considering the ideas underpinning the response. Once content, tone and concepts had been considered, stage three created a synthesis

of themes and trends from previous stages of analysis to get an interpretation of what the respondents were trying to say. The fourth stage sought commonality in themes. In the fifth stage, results are bracketed for each participant in anticipation of the analysis of the next response. Finally, when all data is analysed, participant level themes are considered against emerging themes of the whole cohort, both conceptually and with regards to how they are expressed by different groups within the participants. In a larger sample, Smith suggests that the recurrence of themes is measured to establish thematic areas and re-analysed against a matrix of themes. The context of themes and responses is considered to establish a more holistic view of the phenomena explored (Smith et al., 2009).

Results

Responses and Demographics

There were 610 responses received. Of these, 407 were complete and utilised in the analysis. Another 203 were incomplete and excluded from analysis (Hertel 1976). Demographics of respondents, for the most part, matched the distribution in the paramedic workforce at the time (Paramedicine Board of Australia, 2021). These are reported in detail with the quantitative results of the post-registration survey in another publication (Reed et al., In Press). In summary, 230 (56.5%) of participants here male and 167 (41%) participants were female. Age distribution was consistent with the workforce with a slight over representation of participants over 35 years of age (62.5% of participants vs 51.4% of workforce).

Features of Positive Views of Regulation

Those holding positive views of regulation shared several common elements. Common reasons for the introduction of registration reported by participants included safety of the community, standardisation of the profession, accountability and professionalisation.

Participants outlined a diverse set of impacts from regulation. The strongest view was that regulation brought no change at all. This was often a view held by those who felt they already met

high standards of practice. Almost as prevalent was the perception that regulation brought accountability to individual paramedic practice and that the scheme created costs to paramedics. Some participants perceived that registration advanced the professionalisation of paramedicine, especially in advancing the status of the profession on relation to other established health professions.

Many responses regarding personal impacts mirrored those about general impacts of regulation. Those who perceived regulation more positively commented on increased individual accountability and increased professional recognition, which tied into the concept of professional identity.

Perceptions of future impacts often produced different responses than when participants commented on current or retrospective impacts. A strong theme emerged around increasing practice opportunities for paramedics. Some expressed a belief that there would be increasing employment opportunities for paramedics, especially outside of traditional statutory emergency ambulance roles. Equally, many expressed an aspirational goal for paramedicine to be used more effectively, creatively and flexibly within the broader health system.

For many, registration provided an equalising effect with other health professions with participants perceiving that being part of the same regulatory framework meant paramedicine would increasingly hold similar status, with both the public and collegially with other health professions. This was also often coupled with recognition that paramedicine now held similar standards and accountabilities to other, more established, professions.

> *"Registration has bought the profession into line with other registered professions in a way that I think will improve interprofessional interactions. With registration, I think paramedics are better placed to be treated by other health professionals as equals." – Respondent 286*

Features of Negative Views of Regulation

Some participants offered alternative rationales for regulation. Most common was revenue raising, that is, government levying additional income by "taxing" practitioners for the right to practice.

> *"As a Rort to pay money to do the exact same job we already do. Not dissimilar to 1980s garbage routes in New York where you had to join a mob-affiliated union to be able to do business." – Participant 171*

Some considered registration a conspiracy or agenda by government, education providers, or others within paramedicine. Other participants perceived it as blame shifting by employers and hubris of paramedics wishing to seek status. Within the IPA process a trend was found in the negative responses to this question where the language tended to be more sarcastic and pointed, in line with previous discussion of colourful language found in paramedic culture (Tangherlini 2000).

Some with negative views also considered regulation had no effect. For this group indicating there was no impact, some believed the scheme was flawed or ineffective. Others indicated they noticed no difference in their day-to-day work routine, and as such, considered there to be no impact. While most saw accountability as a strong, positive outcome, others considered accountability as a trap, designed to punish paramedics by creating a set of nebulous standards open to interpretation by the regulator. Those who mentioned cost as an impact of registration ranged from people who considered fees simply a price of the regulatory system to those viewing cost as unnecessary and punitive.

> *"Another boogeyman for hard working ambos to be afraid of…I can't magically work in another discipline, despite that being a magic bullet that comes with my annual AHPRA employment tax." – Participant 265*

Negative themes commonly discussed perceptions around cost and risk. In addition to financial burden, many participants raised challenges of compliance with registration standards. Again, those who did raise negative individual impacts did so with more hyperbole than those who saw registration as neutral or positive.

> *"It cost me money. I don't have a professional wage. I'm not treated as a professional by the rest of health. I have no backing from my service if something goes wrong. My scope of practice has increased in that now I'm forced to supervise and sign off casual trainees with no understanding of our scope of practice and are frankly unsafe - and it's my rego I'd something goes wrong, despite the service making the decision to hire them. It's just delightful to pay money yearly for this "privilege". And knowing I am completely replaceable, which the service and rego body reminds us of regularly. Really love that bit" – Respondent 194*

Post-Registration Survey Themes

Pre-registration survey findings tended to adopt a uniform view of regulation (e.g., supportive, unsure, opposed), and as registration had not begun, were speculative. However, post-registration results are informed by almost three years of experience of regulation and provide participants with a much more tangible basis for commentary. Participants' perceptions consisted of both philosophical stances on regulation and critiques of the function of regulation building on the themes reported in the pre-registration survey (Reed et al., 2022). Participants in the post-registration survey provided more nuanced and less polarised responses than pre-registration survey participants. Perceptions fell into three overarching themes: Regulation as a disappointment, Regulation as a transformative opportunity and Regulation as a form of othering and abandonment.

#1 Regulation as a disappointment

Survey participants who were supportive of regulation but had expected greater change reported a mismatch in their perception of the expectation and reality of the impact of regulation. These

participants had anticipated that the new regulatory framework would "clear out the deadwood" and deliver a profession devoid of lazy, unethical and unsafe practitioners and practices. They reported feeling that those who they believed regulation was targeted towards were untouched by the regulator's authority and avoided accountability. Participants felt that they had overestimated the threshold for regulatory intervention and potentially misunderstood the aim of regulation. While suboptimal practice is problematic in a profession, it may not inherently be dangerous or the purview of the regulator to manage.

> *I think there seems to be an idea [that] paramedics are more accountable as they are now accountable to an external body but critically evaluating this statement, I see absolutely no evidence of this after three years and yet I am aware of serious breaches of professional standards investigated by employers that the Board have been made aware and yet nothing is made publicly available to assure the public the Board is acting to protect their interest. In effect I am saying there is a perception of a safety blanket that there is no evidence to back up. - Respondent 36*

#2 Regulation as a transformational opportunity

Some participants identified opportunities for increased scope and role for paramedics and changes in relationships with the community, and more importantly, other health professionals. This group were predominantly female respondents across the age range and males under the age of 35. They perceived that entering the same regulatory framework as other, more established, professions gave paramedicine an accountability which allowed it to engage on a new level with other professions. While some argued that regulation gave paramedicine status, there is an equally salient argument to say that the growing independence and autonomy of paramedics required it to have the same accountability and regulatory status as other professions. This concept, coupled with increased practice opportunities and increased scope, underpinned a sense that paramedicine was now, or potentially, a full participant in the health system, rather than having a niche role at the periphery of healthcare.

> *As registration evolves, paramedics will likely be moved away from protocol-based technicians and will be able to draw on their knowledge of best practice within the guidelines of their service. This will allow swift changes to patient treatment. – Participant 269*

#3 Regulation as form of othering and abandonment

Supporting the pre-registration survey finding that some paramedics saw regulation as a subjugator of practitioners, there was a small but very vocal group of participants holding strong negative perceptions of regulation (Reed et al., 2022). These participants, who were mainly men in their late 40s and 50s, perceived that regulation was a conspiracy or at least an agenda by groups of powerful elites (either government or academics) who wished to control paramedics or impose undue burdens (e.g., cost) upon them. The concerns of this group were more tempered than in the pre-registration survey but still contained strong language of "othering," imposition and lack of control of the workforce (Tangherlini, 2000). For this group, regulation was not something they participated in, but, instead, something imposed upon them without consultation. This group continued to see themselves as "victims" of regulation.

> *Just more stress. Just another avenue for you to be stood down, investigated and sacked by desk jockeys that wouldn't last a shift. – Participant 157*

Some participants expressed negative views that paramedics had been abandoned by employers to the wrath of the regulator. They saw employers as abrogating their responsibility for employees. This was counterpose to those who in both the pre-registration and post-registration surveys believed that independent oversight of conduct and competency was of benefit and should be divorced from employers. This group may be resistant to the change of regulatory framework, or that regulatory investigations and sanctions now operate outside the industrial context including union intervention.

> *Increase in general level of fear that the ambulance service will 'disown' employees who have major complaints raised against them, 'throwing them under the bus' so to speak. – Participant 144*

Comparison to the Pre-registration survey

Qualitative results from the first survey are reported in detail in Reed et al (2022). Four major themes were identified:

1) Registration as a safety mechanism – The role of regulation is to protect the public and is critical for the operation of a professional discipline.
2) Registration as a professional enabler – Regulation will provide legitimacy and opportunities to paramedicine by raising it to the status of other health professions.
3) Registration as a subjugator of practitioners – Regulation will put practitioners at risk by reducing their income, exposing them to vexatious complaints and reducing their autonomy.
4) Registration as a complex bureaucratic process – Regulation will not change practice but creates complex, unnecessary processes practitioners must navigate to continue practicing.

The results of the 2018 pre-registration study produced relatively clear views of the concept of regulation. At the time of this study, regulation had not commenced so the experience of regulation was speculative on the part of paramedics. Views tended to fall into one of the four themes outlined above with views being either entirely positive or entirely negative regarding regulation. Although some participants were uncertain of their future under regulation and how it would impact on their practice and lives, those

who had positive views considered regulation an entirely desirable situation with exclusively advantageous impacts on the profession and/or the public. Likewise, those with negative views considered regulation an exclusively undesirable prospect with confident predictions of either harmful impacts on paramedics or a frustrating bureaucratic nightmare.

In the 2021 survey, results were often more nuanced or mixed. For example, some with strong philosophical support of regulation felt disappointed by its impact on the profession. Likewise, those with negative views would occasionally concede that the predicted harms to paramedics anticipated in 2018 may not have come to pass. This better elucidates the complex lived reality of a phenomenon such as regulation.

Discussion

Factors impacting responses

Paramedic worldviews do not happen in isolation. They are influenced for example by cultural background, age, gender, community, and political views (McCann, 2022). Gender appeared to be a moderator of worldview as was, to some extent, age – often as a surrogate for the experience and entry-to-practice education of participants. This finding may relate to a range of factors including that the demographic of older/greater years of experience of paramedics may come with an experience of more confrontational industrial views, be more socially conservative, and have entered the profession through a vocational pathway. There is a historical gender skew due to the history of paramedicine so while 59.7% of paramedics aged 20-34 are female (6610 female vs 4412 male), only 17.6% are female in the 55-64 age range (381 vs 1779) (Paramedicine Board of Australia, 2021b). This group may also be genuinely change-fatigued due to the rapid and significant changes to the work environment and process they have experienced (McCann, 2022).

#1 Regulation as a disappointment

Paramedics who were disappointed in registration often perceived the pace of change should be rapid and the results decisive. This is interestingly in contrast to scholarly work suggesting paramedics are often seen as change-resistant or at least fatigued (McCann, 2022: Wankhade, 2012). Many expected regulation to solve perceived issues within the profession and create professional equality in standards of care, including work ethic and engagement with the profession. As discussed below, paramedicine, with over 20,000 practitioners in Australia, is a broad profession with a range of practitioners and an expected range of views of what constitutes professional practice from a population of that size. The role of regulation is, ultimately, safety (Irvine, 2016) and while regulation encourages and codifies good practice, management of the quality of practitioners and their care is a multifaceted process with multiple mechanisms.

#2 Regulation as a transformational opportunity

Those who saw paramedicine as a transformational opportunity often cited historical relationships with other professions. While Tangherlini (2000) outlined the tension between, paramedics and other disciplines, e.g., nursing, those supporting regulation believe that it is an equalising factor which goes some way to address historical subordination of paramedicine by other professions, notably medicine. In fact, the independence of paramedicine from medicine is celebrated through regulation, as it establishes paramedicine as a more autonomous profession, and most importantly regulated by itself in parallel with its traditional master, medicine. Paramedicine sees itself, in some way, as breaking from the medical dominance historically applied to so many other professions and embarking on a path of seeing other professions as equals and colleagues (Willis, 1983).

#3 Regulation as form of othering and abandonment

It is noteworthy that in discussing participants who saw regulation as a form of “othering” that there are similarities in many of these responses to forms of language used in negative responses

to COVID-19 restrictions, vaccination, and other forms of government mandate (Raballo et al., 2022). This group almost universally sees regulation imposed upon them by others with control over their work and livelihood. It is here there is likely to be an important intersection between wider culture and paramedic worldview.

Paramedics who hold negative views have often been from a vocational rather than university education background. In this sense they may also have a different sense of professionalism cited by McCann (2013) as "Blue Collar Professionalism." Willis (1983) cites a change in medicine as it became more formal and established itself as part of a professional middle class. In some ways paramedicine is making this change as new entrants come with bachelor's degrees, often from courses with high or very high entrance requirements on par with other elite health professions such as dentistry, physiotherapy and medicine (O'Meara et al., 2017). This creates a fundamental tension between the "Blue Collar" and new "White Collar" paramedics which enhances the sense of being "othered" in favour of a better educated, more mobile workforce population. This may lead to the development of a discourse as reported by Tangherlini (2000) where occupational value and identity is perpetuated by some paramedics through "othering" of those whom they wished to make distinction. Tangherlini had originally cited this in interactions with nurses and other health professions, but in this case, sub-cultures of paramedics may, in fact, be "othering" their colleagues or "othering" themselves to identify themselves as an oppressed or disenfranchised sub-culture.

Limitations

The post-registration survey varied slightly in inclusion criteria to the pre-registration survey. As registration had not commenced, the first survey relied on self-identification of participants as paramedics without a clear delineation brought with registration. However, this is likely to have resulted in only a small difference. Likewise, the short nature of qualitative responses in a survey, and without the benefit of recordings or field observations, means that while analysis of

tone and syntax is possible, it is more limited than data gained by interview.

Conclusion

The post-registration survey findings suggest that views of regulation develop and become more complex and nuanced as the system operates and as practitioners become accustomed to their regulatory environment. This more recent survey also solidifies the premise that paramedicine is not just a single culture but a series of subcultures, each unique and influenced by factors like gender, culture and political views. This study gives insight into the intersection of culture, professional identity and cultural identity especially with respect to the professional norms that different practitioners hold.

Regulation itself is neither inherently positive or negative but rather is viewed by the individual based on how it is perceived and how the individual believes it impacts their practice and indeed their life. The more nuanced results found in the post-registration survey reported in this article, especially in comparison to the pre-registration survey, shows that the relationship between practitioners and regulation will continue to become more complex as the profession and its members evolve. Understanding these complex interactions help understand how paramedics navigate the regulatory framework and help explore professional identity and culture by using regulation as a phenomenon which diverse practitioners experience and express opinions on. Future research will be needed to follow the continued evolution of paramedicine, and this is likely to give critical insight into the trajectory of the profession.

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SECTION IV

DISCUSSION AND CONCLUSION

"For there is nothing either good or bad but thinking makes it so."

William Shakespeare, Hamlet

Chapter 11: Discussion

Paramedicine's Professional Status

Regardless of which theoretical construct is applied, paramedicine has significantly advanced in the last half century along the occupational continuum towards professionalisation. Paramedicine enjoys substantially more control over its work and processes than it did 50 years ago, especially in Australia (Bell et al., 2021; Moritz, 2018; O'Brien et al., 2014; O'Meara et al., 2017). Early in the process, paramedicine did require guidance and sponsorship from the profession of medicine to achieve progress and status. However, like other professions who have found a unique niche in health in the Australian context, paramedicine has continued to grow independently, increasingly working in collaboration with other professions rather being subservient to them (Willis, 1983).

It is important to consider that the position of professions in modern society is different to what it was when the earlier writings on professions were undertaken. Professions have different expectations, different status and different challenges. Wilensky (1964) suggests that it seems everyone is trying to be a profession and that many crafts, trades and occupations with technical or scientific complexity are seeking professional status. Wilensky suggests few will reach the classical status of the learned professions. Another essential element to consider is that not all professions are equal. The 'learned' professions of the clergy, law and medicine are a millennium older than paramedicine (Freidson, 1994). If we accept that professionalisation is a continuum, on which each occupation is on a separate and unique journey, then they will inherently be at different places within the continuum (Reed, 2019). Freidson (2001) highlighted that for each occupation, the process of professionalisation will be unique. Occupations will professionalise and deprofessionalise based on a range of factors including social need, functionality, and evolution.

Being a professional entails multiple relationships. There is a relationship with one's body of knowledge and community of practice. There is a relationship with the processes of practice including, increasingly, areas like technology. There is a relationship with clients and patients. There is a relationship with the state and there is a relationship with the political economy (Freidson, 2001). Paramedics occupy a unique position within professional work. Abbott (1988) indicates some trait-theorists and social economists suggest that true professions have a fiduciary relationship with clients and have full control over the delivery of their services. This is unlikely to be the case for paramedics in any meaningful way as paramedics are health professionals designed to work in teams and organisations. However, what paramedics do have is significant control over the way that they deliver their services to patients. Freidson (1994) refers to this as "technical autonomy". Paramedics have increasing control of clinical practice, evidence and the body of knowledge itself, although it is critical that paramedics are engaged in research and governance in a wide range of setting, not just in academia. Paramedics also have a role in seeing expectations for the profession and ensuring that care is provided in person-centred and ethical ways. This control over the nature of delivery of services is a key feature of professionals (Freidson, 2001).

Evetts (2011) suggests that in the modern professional landscape many professions, such as paramedicine, predominantly operate within large, structured organisations in comparison to other traditional professions such as law and medicine, that predominantly operate in individual practice, although sometimes in co-operative arrangement with other practitioners. Evetts suggests professionalism is an occupational value carried by practitioners which differentiates their work as professional. This is in contrast to professionalism being defined by a set of external characteristics as proposed by trait theories and through monopolisation found in those theories which are more centred on individual commercial control of labour. This goes some way to addressing the conflict between views of professionalisation that suggest professionals have complete control over service provision and client relationships. This also extends Freidson's (1994) conceptualisation of technical autonomy within service professionals.

McCann refers to institutional work as "the purposive action of individuals and organizations aimed at creating, maintaining and disrupting institutions" (Leca et al., 2009 p.1). Paramedics are a clear example of an occupation that has traditionally worked within an institutional or organisational context. Unlike professions such as medicine, physiotherapy and law, paramedics are rarely, if ever, in private practice for themselves but rather exist in the context of occupational groups and organisations to undertake their professional work. While paramedics accept their employment in organisational structures, it is common for people doing institutional work to look for ways to control their work within the institution (McCann et al., 2013).

Classically, there has been a dichotomous view that professions operate in either a free market of the type espoused by Adam Smith or within a Weberian Rational-Legal Bureaucracy (Freidson, 1994). To some degree these influence the professional climate in different cultures. In Europe, the state has a greater stake in the operation of professions, whereas the US broadly tends towards a system more akin to Smith in terms of the delivery of services and the process of securing other's specialist labour. Freidson recognises that the dichotomy is far too rigid and various combinations will exist depending on the profession involved. Freidson also recognises this as a hybrid situation where bureaucratic organisations maintain specialist professional staff. Much of this positioning within the organisation relies on trust, that is the expectation that the worker can undertake their specialised work in a way which is broadly autonomous but operates within the policy and protocol of the organisation to provide structure for the delivery of services (Freidson, 1994). This is especially true for paramedicine as work environments range from for-profit companies to government authorities to charitable not-for-profit organisations. Paramedics operate with a range of complex stakeholder relationships in different contexts.

The results of the two surveys highlight the importance of autonomy to paramedics. This along with their technical skills, often expressed through their scope, establish paramedics as having a unique set of skills and knowledge which they apply in a healthcare context. One interesting

aspect of the survey results is the way in which different practitioners view the concept of power. For those who support regulation, self-regulation is empowering. It provides a mandate for paramedics to exist within the professional healthcare space in a way in which their expertise is valued because they meet similar accountabilities to other health practitioners. Conversely, some see it as disempowering. They see accountability as a form of distrust. Trust is key to the professional model (Freidson, 1994). The establishment of power is important to understanding the nature of professionalism (Freidson, 1988b). For those who support regulation, they are more likely, either consciously or unconsciously, to recognise the social contract and draw their power from the mandate given to them by the contract. Others may draw power from their capacity to influence service interactions underpinned by a mandate from the employer to provide service. For the latter, they see regulation as undermining that power.

It is also possible that members within the profession are professionalising at different rates. McCann (2013) noted that in the UK there were those paramedics who were strongly advancing a traditional agenda of professionalisation and embraced the rapid change in paramedic professionalism. Equally he found a considerable number of front-line workers who were not experiencing as rapid a process of change. This was likely due to differing concepts of professionalism and embracing professional evolution.

Regulation

The Case for Regulation

If we examine the fundamental purpose of regulation, it is to protect the public from the practitioner (Irvine, 2016). One may ask why patients would need to be protected from paramedics, given the very function of paramedics is to provide care to those who are sick and injured. The answer comes back to the social contract. Within the social contract, each party, in this case being the paramedics and the community, have expectations placed upon them. For the

paramedics, they have the responsibility to work in the patient's interest and to do so in a way which is safe, effective and ethical (Reed, 2022). In return, the profession receives status, remuneration for their work, and control over their work, especially in the form of self-regulation (Cruess & Cruess, 2020). Given that paramedics disproportionately encounter people who are vulnerable, often in the context of holding not only power through their clinical relationship but also power derived from organisational representation such as government authorities, creating governance around professional power is particularly important.

Assessments undertaken in the lead up to paramedic regulation found that paramedic practice was risky: in fact, the second riskiest health discipline after medicine itself (Paramedics Australasia, 2012b; Western Australian Department of Health & Victorian Department of Health, 2015). This does not suggest paramedics themselves were risky practitioners, but rather, that the nature of their work carries a range of inherent occupational risks. Paramedics perform healthcare in unstable environments, perform invasive procedures, make complex clinical decisions in isolated environments with limited support, and encounter vulnerable and isolated patients (Shaban et al., 2004). To achieve quality healthcare this risk needs to be managed. This can be managed for a profession through structures like licensure or managed by the profession through self-regulation (Irvine, 2016; O'Meara et al., 2018). Self-regulation is granted to a profession by the community as part of the social contract (Reed, 2022). Essentially, this part of the social contract is both a recognition by the community that paramedic practice comes with inherent risk. However, it also is an indication that the community, as partner in the social contract, trusts the profession to largely manage this risk by itself as a recognition that the profession is sufficiently mature and self-reflective to be capable of this form of governance (Cruess & Cruess, 2020).

The social contract, however, is not static. The contract is constantly renegotiated through "social negotiation". If either party is not content with the terms of the contract, the potential exists to change it (Cruess & Cruess, 2020). This is where the risk to paramedicine in self-

regulation lies. With the responsibility of ensuring it meets its side of the social contract, should paramedicine fail, the community will withdraw its sanction to self-regulate either partially or wholly. This would then reduce the profession's control over its division of labour (Brydges et al., 2022). This is the process of deprofessionalisation (Freidson, 2001; Randall & Kindiak, 2008).

Regulation and Professionalisation

When examining trait theories in previous chapters, self-regulation and community sanction were often included in the various lists of professional characteristics (Greenwood, 1957; Reed, 2019). However, the relationship between regulation and professionalisation ends up in the traditional chicken and egg conundrum; is an occupation a profession because it is self-regulated or is an occupation self-regulated because it is a profession. In a sense it is both. Examining the relationship in the context of the social contract, for paramedicine to be self-regulated, by default it required the sanction of the community to do so. Thus, it must be both requiring regulation, by virtue of its risk profile and professional power, and capable of self-regulating by being mature and accountable (Cruess & Cruess, 2020).

One critical aspect of regulation is what has driven the need for regulation of a particular profession. Professions can be regulated because their power is unchecked. This was the case for medicine in the 19th century (Roberts, 2009). Alternately, such as in the case of nursing and midwifery, regulation was initially imposed on these occupations by medicine as a means of professional control (Wilensky, 1964; Willis, 1983). Finally, professions can seek regulation as a way of showing their progress in professionalisation and as part of the legitimisation of their autonomy (Wilensky, 1964). Paramedicine in Australia is likely in the third driver, although regulation was sought not purely for recognition but also as a way of controlling standards and entry to a profession with a significant risk profile based on its activities (Paramedics Australasia, 2012b).

Practitioners Navigating Regulation

The navigation of the new regulatory framework represented a challenge for many. Central professional regulation of paramedics had never occurred and created a new paradigm for paramedics. Paramedics were used to regulation through their employers, which no doubt reinforced the concept of institutional work in this occupation (McCann et al., 2013). While a new regulatory scheme was welcomed by many, it was still complex and new for a group of practitioners who had not been engaged previously with such a system (Reed et al., 2021). Registration brought with it a range of standards to become familiar with and comply with as well as a range of governance documents outlining the way the members of the profession would optimally conduct themselves (Gough, 2018).

The surveys outlined the confusion which many respondents report experiencing, not to mention the stress of those engaging with the grandparenting scheme (Reed et al., 2021). Given the number of people who had to be enrolled in the scheme in a relatively short amount of time, such stress and confusion was inevitable. The stress experienced by some highlights the existential threat that potential removal of one's identity creates when a new mechanism of determining entry to a profession is put in place (Reed et al., 2022).

Detractors of regulation claim that paramedicine has no need for another level of regulation (Reed et al., 2022). They make a case that paramedics already are overregulated by employers and additional regulation creates risk to practitioners. This view, while held by a minority, highlights the divisive nature of regulation and the importance of understanding the nexus between regulation and practitioners.

Moving forward, in many ways the requirements of the regulatory scheme should mirror the best practice in which new entrants are ingrained. One notable change, however, is the assumption that paramedics are always paramedics and their requirements for membership relate to their registration and not exclusively their employment. Within the experience of

paramedic institutional work, culturally there had been a view for many that anything work-related needed to occur in work time. However, within the new scheme, registration is a professional status which is required for work, but not the responsibility of the employer. While many employers will, no doubt, support staff, some believe the regulatory arrangements extend into their personal lives in a way which had not occurred before (Reed et al., 2022).

Identity

Identity Formation and Regulation

The creation of identity is a complex phenomenon. Professional identity is formed through a combination of an individual taking on the traits and values of a profession and amalgamating them with their personal identity (Cruess & Cruess, 2016). In the case of paramedic professional identity, there is a complex interplay between occupational identity, organisational identity and personal identity. Each is influenced by local and regional nuances. Paramedics have been traditionally engaged with a deep connection to organisation and employer. Although this is likely diminishing with generational change, especially pre-regulation, affiliation with a paramedic employer not only provided cultural and social membership to a group but established group values. Employment acted as a de facto indication of both occupational status and legitimacy. This often resulted in the termination of employment, whether by retirement or other means, as not only the end of an occupational relationship but also the start of an existential crisis of identity. Those who were in the organisation were legitimate and those outside the organisation no longer had sanction to hold occupational identity. Regulation created a new relationship where identity as a paramedic is now established through membership of the profession rather than through membership of an employer. While both occupational (i.e., paramedic) and organisational (i.e., employer) identity will operate in tandem, practitioners now enter and exit organisational relationships as a paramedic, rather than that determining and ending their professional status.

While trait theories focus on lists of characteristics, later writers focus on what professionals do and whom they serve (Abbott, 1988;; Evetts, 2011; Ewing & Smith, 2008). This is critical to the identity of the profession and the practitioners within it. Abbot (1988) proposes a model where a profession differentiates itself by establishing jurisdiction over a combination of elements to establish its power and exclusivity. For example, one area of jurisdiction is client differentiation. Paramedicine would claim that people having unscheduled health events outside health facilities, for example: at home, in the workplace or in public places, are its unique client basecompared to other health practitioners. Further, paramedicine may claim specific task jurisdiction, for example, managing trauma outside of a health facility or transporting people in a vehicle to hospital. In some cases, this jurisdiction may come from legal statute, sometimes from public expectation and sometimes from the holding of specialist knowledge. However, it is important for both government and the public understand the full range of paramedic roles, including emerging practice areas such as community paramedicine ad primary health care. It is this jurisdiction which establishes a unique division of labour (Freidson, 1994).

The identity of the profession is inextricably tied up in the network of jurisdictions it claims. Professionalisation assists in establishing these clear jurisdictions and reinforcing them (Abbott, 1988). However, it also puts pressure on the profession to maintain these jurisdictions and loss of these may be a factor in deprofessionalisation (Randall & Kindiak, 2008). Jurisdiction, however, may change over time or need to be adjusted. For example, paramedicine, and previously ambulance officers, had long held jurisdiction over the task of transporting people to hospital and this control over a specific means of production (i.e., the ambulance), had been part of the jurisdictional claim for the occupation. However, other groups now use ambulances, (e.g., nurses and patient transport officers who do interfacility transfers), and likewise there are paramedics who do not work in ambulances at all. This requires the profession to redefine its jurisdiction so that it can maintain a unique identity when some elements are encountering boundary permeability with other occupations or profession (Abbott, 1988). The profession

needs to be nimble as jurisdictional boundaries continue to be changed and challenged (McCann et al., 2013).

Identity is also deeply concerned with the things professionals do (Ewing & Smith, 2008). One of the revelations of the Canadian study into regulation and identity undertaken as part of this PhD project (Chapter 4) was that paramedics are deeply engaged with "doing" paramedicine as a defining feature of their identity. The act of doing and being a profession situates the individual within that profession (Ewing & Smith, 2008; O'Meara, 2011). But more than simply "doing" paramedicine, regulation influences the way paramedics undertake the activities of their profession. This is a critical element of whether paramedics consider themselves professionals in the more classical sense. That is, they see their practice aligned with the ethics, values and focuses of a profession (Freidson, 2001). However, this does create a tension with the "Blue Collar Professionalism" outlined by McCann, which originates not from the profession and its values but from the experience of front-line staff who are engaged in institutional work (McCann et al., 2013; McCann, 2022).

Class, Identity and Professionalism

One element of the tension around professionalisation is the concept described by McCann et al as "Blue Collar Professionalism" (McCann et al., 2013; McCann & Granter, 2019). The link between blue collar professionalism and social class structure is not fully explored but would be reasonably expected to have grown from the social classes from which ambulance staff were drawn in the late 19th and early 20th century. In this context, there was a clear class divide between the "trade" class and the elite class of medicine. However, medicine itself has been said to have operated within a "service class" where specialists physicians would provide services to the economic and aristocratic elite, leading medicine itself on a journey of class distinction (Willis, 1983; Freidson, 1994). However, Freidson (1994) also argues that class is a blunt tool with which to assess professions in modern times. This is especially true in Australian paramedicine. Increasingly, those coming into paramedicine and medicine come from a diverse

range of socioeconomic backgrounds and often require similar academic standing to enter university courses in either medicine or paramedicine.

These tensions differentiate the way paramedics see themselves in the profession from each other. As mentioned previously, paramedicine is not a single homogenous culture, this culture is comprised of numerous groups with an even broader range of worldviews. Freidson (1994) suggests that within the professional realm, there are occupations that have obtained a fuller professional status and those that would be considered semi- or para-professions. These occupations exist within this space on the occupational continuum. It is equally plausible within paramedicine there are those who fully engage with the profession in a way consistent with the expectations of a "full" profession and those who engage as semi-professions based on their view or understanding of the professional social contract, their membership of a community of practice and their place within the system of professions (Abbott, 1988; Cruess & Cruess, 2020).

Limitations

This program of research experienced some limitations. First, while professional identity in general is well researched, paramedic identity is not well explored. Paramedicine currently lacks a foundational philosophical framework unlike nursing and medicine (Bender, 2018; Carter & Thompson, 2015; Michau et al., 2009). This impacts on discussions of paramedic identity as there is not yet a theoretical basis for what defines one professional as a paramedic.

Second, while the studies in this project are appropriately powered to produce statistical significance in the results, there are still regional and local variations of worldview and influence which may not be fully explored when looking at a national-level sample. While academic assumptions can be made about specific worldviews or cohorts of worldviews based on the literature, there may not be enough detail to understand the origins of some sub-cultures

within paramedicine (Reynolds, 2009; Wankhade, 2010). Likewise, while samples were reflective of jurisdictional shares of paramedicine, often smaller jurisdictions represent tiny shares of the workforce and, consequently, survey responses. For example, at the time of the post-registration survey, the Northern Territory accounted for 0.93% of registered paramedics and the Australian Capital Territory accounted for 1.56% (Paramedicine Board of Australia, 2021b).

Finally, data from the two surveys provided an enormous amount of information, but the utilisation of survey methodology often meant that the data lacked depth and context. While IPA was useful in interpreting the nature of this feedback, a more traditional qualitative tool such as focus groups would have yielded field notes and observations from recordings. This would have provided greater depth of tone and context to these statements and enhanced the use of IPA and hence the results (Smith et al., 2009).

Next Steps in Research

This project has given an insight into the intersection of professionalisation, identity and regulation. However, it has also raised a range of new issues. Central to the issue of identity is the core of how paramedicine identifies itself. Unlike medicine, nursing and other established health professions, paramedicine has yet to formalise a central theory of practice: that is, an underpinning framework which differentiates paramedics from other health professionals through their worldview, conceptualisation of practice and approach to care (Carter & Thompson, 2015). Nursing refers to this as the Nursing Metaparadigm (Bender, 2018). This underpinning framework of practice will help paramedicine understand its unique position within health and assist in defining paramedics through a mechanism other than occupational role.

Second, there is a transition happening, at least in Australia, between a “blue collar” and “white collar” concept of professionalism within paramedicine. This has been influenced by changes in education and clinical governance in paramedicine (O'Brien et al., 2014; O’Meara et al., 2018). This means “traditional” concepts of professionalism in paramedicine are being challenged by new paradigms which are underpinned by new professional values. This transition warrants exploration to examine how paramedicine is evolving and will inform future growth and development.

Finally, paramedicine is not a single culture but a tapestry of sub- and micro-cultures. These subcultures will influence local conceptualisations of professionalism and interplay with other adjacent subcultures. Paramedicine is often examined in isolation and this project highlights that paramedic culture is likely influenced by external political and social elements as well as aspects of class, gender, and generation. The interplay between the many influences on paramedicine and the paramedicine workforce are under-explored and will also add value to our understanding of the practitioners within paramedicine.

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Chapter 12: Conclusion

Paramedicine is in an exciting stage of its evolution. It has reached a number of milestones in the journey of professionalisation. Regulation is one of these. It is not an end destination but rather a signpost to remind the profession of its growing autonomy and growing responsibility. Regulation clarifies the social contract for paramedicine and creates more tangible mechanisms for monitoring and renegotiating that social contract.

It woule be naïve to think that a profession with over 20,000 practitioners would have a single view of a phenomenon such as regulation. Some applaude it. Some curse it. Some wait patiently to see what happens. What is clear is that like any change in a profession, regulation requires continual adjustment, educaton and reminders of its role in paramedics' professional lives.

The great irony of regulation is that if a profession were truly operating to the values, ethics and conditions of the social contract which are expected, it SHOULD do nothing. Its role in mitigating the social contract and reinforcing its conditions would be moot. However, professions are comprised of people, and people have diverse worldviews and interpretations of the social contract. This is especially the case for paramedicine where there remains a tension between person-centred care and institution-centred work. This will take time to be resolved as it is a situation created by differences in class, change, philosophy and generation.

One of the key lessons from this project is how little we understand about paramedicine as either a profession or a culture or even a series of sub-cultures. More work needs to be done to explore the construction and underpinning frameworks of the profession. This will not only help inform the future evolution of the profession but also help understand some of the tensions between "blue collar" and "white collar" profesisonalism and whether paramedicine, perhaps, needs a mix of both as one of its unique differentiators.

Regulation is a new phemonenon for paramedicine in Australia and many have wondered if it is empowering to the profession or restrictive. Detractors would argue that it is an unnecessary intrusion into the long held street-level autonomy of paramedics and disrupts the traditional pattern of institutional work, especially in the case of ambulance services. However, regulation more likely sets guardrails around the ever increasing power and autonomy of paramedicine. Like all professions, including medicine, power and influence will fluctuate as a result of new challenges and external factors. Given the nascent positions of paramedicine as a new profession, it is likely to be some time before those types of challenges occur. In the short to medium term, paramedicine will continue to explore its role in the healthcare system and the capacity of its practitioners to engage in new forms of activity. Given the responsive and adaptive nature of paramedicine as a discipline, it seems wise to create a framework in which paramedicine can grow and ensure it effectively discharges its responsibilities in the social contract.

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“Remember, with great power comes great responsibility.”

Uncle Ben, Spiderman

Appendices

Appendix 1: Interview/Focus Group Questions 2017 Qualitative Study

Interview Questions

TITLE: *Exploration of Canadian Paramedic Identity and the Impact of Self-Regulation*

INTRODUCTION

These questions form the basis of a semi-structured interview or focus group conducted as part of the above study. Questions may be altered slightly depending on the context of the discussion or the demographics of the participants.

QUESTIONS

How would you describe your identity as a paramedic? What makes you feel a part of the professional group called "paramedics"?

What does being a self-regulated profession mean to you?

How do you view your relationship to the community and how you are responsible to the community?

How do you view your relationship to your profession and how you are responsible to the profession?

Over the course of your career, how you feel paramedics have changed in the way they view themselves, especially as a result of changes in their regulation?

Do you feel that paramedics interact with other health professions differently now that they are self-regulated? Have there been changes in areas such as status, mutual respect, or collaboration?

How important do you think education is in preparing new paramedics in establishing their identity and understanding their role in the community?

Do you perceive that paramedic culture has changed at all as a result of self-regulation or do you perceive that self-regulation underpins any elements of paramedic culture in your professional group?

Questions specific to interviews/focus groups with regulators:

How do you feel paramedics interact with your professional college (self-regulatory body)?

Have you detected a change in how paramedics view themselves as a result of their membership to a professional college (self-regulatory body) or the introduction of self-regulation in your jurisdiction?

Questions specific to interviews/focus groups with managers:

How do you feel being part of a self-regulated profession has impacted on paramedics and how they behave or perform?

How do you think paramedics feel accountable to their employer, their community, and their profession in light of being part of a self-regulated profession?

Appendix 2: Survey Tool – 2018 Pre-Registration Survey

Perceptions of professional registration in Australian paramedics – Pre-registration survey

Preamble

Introduction

In 2018 paramedics in Australia will be regulated under the National Registration and Accreditation Scheme for health professionals (The NRAS). This scheme is administered for paramedics by the Paramedicine Board of Australia (The Board) and the Australian Health Professionals Regulation Agency (Ahpra). This survey seeks to measure the knowledge and views of Australian paramedics regarding professional registration. The aim of this survey is to help understand the experience of paramedics entering into professional registration. This study is part of a PhD project being undertaken by Buck Reed at the University of Wollongong School of Medicine supervised by Prof. Ian Wilson, Dr Leanne Cowin and Prof. Peter O'Meara.

To undertake this survey, you must:

1) Identify yourself as a paramedic (That is you practice as and call yourself a paramedic)

2) Practice in Australia

This is an anonymous survey. The full details of the study are contained in the participant Information on the next page.

You can go back and change answers at any time. If you want to qualify or explain an answer to a question you can do so in various text boxes during the survey including a general text box at the end of Section 3.

Start of Block: PIS

PIS1 **Participant Information**

PURPOSE OF THE RESEARCH

Paramedics play a critical part in the health of the community. Paramedics perform a range of roles, most commonly, the response to health emergencies. In late 2018, paramedics will become regulated under the National Registration and Accreditation Scheme for health professionals (the NRAS). Paramedicine becomes the fifteenth profession to enter this scheme and one of the very few that did not have a previous regulatory framework in place. This creates a unique opportunity to study how a whole profession transitions into a new regulatory system. Understanding the impact of registration on paramedics is also critical to understanding the development of the profession.

As a paramedic, your thoughts and feelings about registration are important. By surveying paramedics as registration starts, we may better understand how paramedics think and feel about registration and set a baseline to help track the development of the profession over time. This information will also potentially help researchers and the profession understand the impact of registration on paramedics themselves.

You are invited to participate in this survey and help provide data which may assist researchers in answering these critical questions about paramedicine. This survey is part of a PhD study by Buck Reed at the University of Wollongong School of Medicine. Contact and supervisor details can be found at the end of this information.

METHOD AND DEMAND ON PARTICIPANTS

If you choose to participate, you will undertake an online survey using the online platform Qualtrics. This survey will take around fifteen minutes to complete. The survey contains questions which present a range of pre-determined options and questions which ask for free text answers. The survey asks questions about your knowledge and perceptions of paramedic registration as well as collecting some demographic data. By participating you are consenting to a single stand-alone survey, and you will not be contacted by researchers again unless you opt in

to be contacted for a follow up survey in approximately one year (see FUTURE SURVEYS).

POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Aside from the use of your time, we do not foresee any risks or inconveniences to you if you participate in this research.

PARTICIPATION IS VOLUNTARY

This participant information sheet constitutes an invitation to participate in the research project. You may withdraw or decline to participate at any time by simply quitting the survey. You can also address any questions in email to the Contact Person below. Please note that once a survey it is submitted it anonymous and cannot be identified to be withdrawn later.

CONFIDENTIALITY AND DATA

Your name, position, employer or location (other than state of practice) is not collected. Any data or information that you incidentally provide in survey answers will be de-identified in analysis and publication. Any direct quotes will be made in publication using a generic identifier (e.g., "Respondent 429"). Reference will not be made to location or other similar demographic data which is collected.

No identifiable data from these surveys will be shared with employers, regulators or any other third party. Any party which may coincidentally be aware of your participation such as an employer will have no knowledge of the nature of your participation or the answers you gave.

Data will be stored and managed in line with the University of Wollongong Research Data Management Policy. This policy outlines research data security. This policy can be found at: http://www.uow.edu.au/about/policy/UOW116802.html#P116_8359
This data will be used for academic publication, academic presentations and as part of a PhD thesis. Reports with overall findings may be shared with stakeholders such as professional bodies and regulators.

FUNDING AND BENEFITS OF THE RESEARCH

This research has been conducted with the support of the Australian Government Research Training Program Scholarship. There may be incidental in-kind support from regulators, employers or other bodies in promoting the research. This research may help to develop an

understanding of how Australian paramedics are engaging with the upcoming registration process and may help understand the impact of registration on paramedics.

FUTURE SURVEYS

This study is the first of two linked surveys. The second survey will follow the transition to registration to help the researchers understand changes in the profession over time. There is no obligation to undertake the second survey as a result of participating in this survey. The second survey will be advertised in approximately twelve months and paramedics may choose to participate at that time.

RESEARCHERS AND CONTACTS

- Mr. Buck Reed (PhD Candidate/Contact), School of Medicine, University of Wollongong, Australia: uowpararegresearch@gmail.com or bcr508@uowmail.edu.au
- Professor Ian Wilson, School of Medicine, University of Wollongong, Australia: ianwil@uow.edu.au
- Professor Peter O'Meara, DCEHPP, Monash University, Australia
- Dr. Leanne Cowin, School of Nursing and Midwifery, Western Sydney University, Australia

This research is part of a PhD project based in the School of Medicine, Faculty of Science, Medicine and Health at the University of Wollongong.

ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Social Science Human Research Ethics Committee of the University of Wollongong (2018/462). Ongoing monitoring of the research is the responsibility of the researchers listed above and annual progress reports are submitted by the researchers to the UOW Research Ethics Unit. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UOW Ethics Officer on 61 2 4221 3386 or email rso-ethics@uow.edu.au.

Thank you for your interest in this study.

By clicking NEXT you are consenting to participate in the survey and the survey will begin.

Start of Block: Knowledge of Registration Process

Section 1 - This section asks questions about your knowledge of the registration process. Choose the statement which best reflects your view.

K1 How would you describe your knowledge of the upcoming registration scheme for paramedics under the NRAS overall.

- ☐ I have no knowledge of it. (1)
- ☐ I have a little knowledge of it. (2)
- ☐ I have some knowledge of it. (3)
- ☐ I have a good knowledge of it. (4)
- ☐ I have an excellent knowledge of it. (5)

K2 How would you describe your knowledge of the Registration Standards applied to paramedics under the registration scheme.

- ☐ I have no knowledge of them. (1)
- ☐ I have a little knowledge of them. (2)
- ☐ I have some knowledge of them. (3)
- ☐ I have a good knowledge of them. (4)
- ☐ I have an excellent knowledge of them. (5)

K3 How would your describe your knowledge of the process for managing serious complaints against paramedics (in your state or territory) once registration commences.

- ☐ I have no knowledge if it. (1)
- ☐ I have a little knowledge of it. (2)
- ☐ I have some knowledge of it. (3)
- ☐ I have a good knowledge of it. (4)
- ☐ I have an excellent knowledge of it. (5)

K4 How well do you feel information about registration was communicated by the Ahpra and/or the Paramedicine Board of Australia?

- ☐ Information was communicated very poorly. (1)
- ☐ Information was communicated poorly. (2)
- ☐ Information was communicated adequately. (3)
- ☐ Information was communicated well. (4)
- ☐ Information was communicated very well. (5)

K5 Why do you think paramedics are becoming registered under the National Registration and Accreditation Scheme for health professions? Please type your answer in the text box below.

[Free Text Area]

K6 Were there any elements of registration that you have found it challenging to get clear answers or information on? Please list or explain them in the text box below.

[Free Text Area]

Start of Block: Perceptions

Section 2 – This section asks questions about your perceptions of registration. That is, your thoughts on what the results of registration would be. Choose the statement which best reflects your view.

P1 Do you think that patients will be safer once paramedics are registered? (This refers to their overall safety, both in terms of their risk from poor clinical practice AND their risk from poor conduct or unqualified/underqualified practitioners).

- ☐ I think patients will be substantially less safe when being treated by paramedics. (1)
- ☐ I think patients will be slightly less safe when being treated by paramedics.. (2)
- ☐ I think that the level of safety to patients will not change when being treated by paramedics.. (3)
- ☐ I think patients will be slightly safer when being treated by paramedics.. (4)
- ☐ I think patients will be substantially safer. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P2 Do you think that paramedics will be more individually accountable once paramedics are registered compared to current levels of individual accountability?

- ☐ I think paramedics will be substantially less accountable for their practice. (1)
- ☐ I think paramedics will be slightly less accountable for their practice. (2)
- ☐ I think that the level of paramedic individual accountability will not change. (3)
- ☐ I think paramedics will be slightly more accountable for their practice. (4)
- ☐ I think paramedics will be substantially more accountable for their practice. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P3 Paramedic registration changes the way major complaints against paramedics are handled. How do you think this change will affect the fairness of this process (if at all)?

- ☐ I think major complaints against paramedics will be handled substantially less fairly. (1)
- ☐ I think major complaints against paramedics will be handled slightly less fairly. (2)
- ☐ I think that the level of fairness in major complaints against paramedics is handled will not change. (3)
- ☐ I think major complaints against paramedics will be handled slightly more fairly. (4)
- ☐ I think major complaints against paramedics will be handled substantially more fairly. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P4 Do you think that the variety of employment opportunities for paramedics (that is, the roles and organisations paramedics can work in) will change once paramedics are registered?

- ☐ I think variety of employment opportunities for paramedics will decrease substantially. (1)
- ☐ I think variety of employment opportunities for paramedics will decrease slightly (2)
- ☐ I think the variety of employment opportunities for paramedics will not change. (3)
- ☐ I think variety of employment opportunities for paramedics will increase slightly. (4)
- ☐ I think variety of employment opportunities for paramedics will increase substantially. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P5 Do you think that the scope of practice for paramedics (that is, the range of clinical treatment options) will change once paramedics are registered?

- ☐ I think the scope of practice for paramedics will decrease substantially. (1)
- ☐ I think the scope of practice for paramedics will decrease slightly (2)
- ☐ I think that the scope of practice for paramedics will not change. (3)
- ☐ I think the scope of practice for paramedics will increase slightly. (4)
- ☐ I think the scope of practice for paramedics will increase substantially. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P6 Do you think that the level of remuneration for paramedics (how much paramedics are paid) will change once paramedics are registered?

- ☐ I think that remuneration for paramedics will decrease substantially. (1)
- ☐ I think that remuneration for paramedics will decrease slightly (2)
- ☐ I think that remuneration for paramedics will not change. (3)
- ☐ I think that remuneration for paramedics will increase slightly. (4)
- ☐ I think that remuneration for paramedics will increase substantially. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P7 What do you think the effects of registration on the profession of paramedicine will be? (These effects can be positive or negative.) Please type your answer in the text box below.

[Free Text Area]

Start of Block: Personal Impact

Section 3 - This section asks questions about how you feel registration will impact you personally.

I1 Overall, what statement best describes your feelings about the introduction of paramedic registration in Australia? (Choose the statement which best reflects you view).

- ☐ I am strongly unsupportive of paramedic registration. (1)
- ☐ I am slightly unsupportive of paramedic registration (2)
- ☐ I am neither supportive nor unsupportive of paramedic registration. (3)
- ☐ I am slightly supportive of paramedic registration. (4)
- ☐ I am strongly supportive of paramedic registration. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

I2 When you think about registration, do you have any concerns or anxiety about registration and the registration process.

- ☐ I don't have any feelings of concern or anxiety when I think about registration. (1)
- ☐ When I think about registration I am a bit worried about it. (2)
- ☐ When I think about registration I sometimes worry about it. (3)
- ☐ When I think about registration I sometimes feel anxious to the point I have symptoms such as rapid heart rate, restlessness, and anxious thoughts (4)
- ☐ When I think about registration I often feel anxious to the point I have physical symptoms such as rapid heart rate, restlessness, anxious thoughts and panic attacks (5)

I3 How confident are you that you will be granted registration once you have applied? (Choose the statement which best reflects your view).

- ☐ I have chosen NOT TO APPLY because I do not believe I will be granted registration. (1)
- ☐ I am not at all confident that I will be granted registration. (2)
- ☐ I am slightly confident I will be granted registration. (3)
- ☐ I am moderately confident I will be granted registration. (4)
- ☐ I am certain I will be granted registration. (5)
- ☐ I have ALREADY been GRANTED registration. (6)
- ☐ I have ALREADY been DECLINED registration. (7)

I4 What do you think the impacts of registration on you personally as a health practitioner will be? (These may be financial, educational, the way you practice, or anything which you think will change for you as an individual). Please type your answer in the text box below.

[Free Text Area]

I5 You can use this space to share anything additional about registration and the implementation of registration (either in terms of your personal situation or for the profession as a whole). This may include any other thoughts or opinions you have about registration which have not been covered by previous questions.

[Free Text Area]

Start of Block: Identity

Section 4 - These questions ask about how you identify yourself as a paramedic.

T1 Consider what you feel makes you a paramedic. Please indicate for each the following characteristics how important you think they are to your identity as a paramedic using the statements provided. You may assign the same level of importance to multiple characteristics.

Professional registration (1)	▼ Not important to my sense of who I am as a paramedic (1) ... Extremely important to my sense of who I am as a paramedic (5)
The qualification you obtained to be a paramedic (2)	▼ Not important to my sense of who I am as a paramedic (1) ... Extremely important to my sense of who I am as a paramedic (5)
Being employed as a paramedic (3)	▼ Not important to my sense of who I am as a paramedic (1) ... Extremely important to my sense of who I am as a paramedic (5)
Being part of a community of practitioners (4)	▼ Not important to my sense of who I am as a paramedic (1) ... Extremely important to my sense of who I am as a paramedic (5)
Your scope of practice (5)	▼ Not important to my sense of who I am as a paramedic (1) ... Extremely important to my sense of who I am as a paramedic (5)

T2 Are there any things not mentioned in the options above which are part of how you identify yourself as a paramedic? Feel free to add any other thoughts you have about your identity in the text box below.

[Free Text Area]

T3 Do you think that being professionally registered will change the way <u>you</u> identify yourself as a paramedic?

- ☐ Definitely not (1)
- ☐ Probably not (2)
- ☐ I don't know (3)
- ☐ Probably yes (4)
- ☐ Definitely yes (5)

T4 Do you think that being professionally registered will change the way that other paramedics view you and/or interact with you as a paramedic?

- ☐ Definitely not (1)
- ☐ Probably not (2)
- ☐ I don't know (3)
- ☐ Probably yes (4)
- ☐ Definitely yes (5)

T5 Do you think that being professionally registered will change the way that members of other health professions view you and/or interact with you as a paramedic?

- ☐ Definitely not (1)
- ☐ Probably not (2)
- ☐ I don't know (3)
- ☐ Probably yes (4)
- ☐ Definitely yes (5)

Start of Block: Demographics

Section 5 - Just to finish, please provide some details about yourself.

D1 Please indicate your age at your last birthday.

_____

D2 Please indicate your gender.

- ☐ Male (1)
- ☐ Female (2)
- ☐ Other (3)
- ☐ Not stated/Inadequately described (4)

D3 Please indicate how many years you have practiced as a paramedic. (This is how long you have practiced as a paramedic since you finished your qualification OR were able to practice using a paramedic scope of practice without supervision.)

_____

D4 Please indicate how many years you have worked in an emergency healthcare role. (This is your time as a paramedic PLUS any additional time as a trainee under supervision, first responder, volunteer or any other related non-paramedic role but NOT including time as a student unless you were working in a role providing care at the same time.)

_____

D5 What level of qualification did you obtain to become a paramedic?

- ☐ Vocational Certificate (1)
- ☐ Associate Diploma (2)
- ☐ Diploma (3)
- ☐ Advanced Diploma (4)
- ☐ Associates Degree (5)
- ☐ Bachelors Degree (6)
- ☐ Graduate Certificate (7)
- ☐ Graduate Diploma (8)
- ☐ Masters Degree (9)
- ☐ Doctorate (10)

D6 Did you obtain this qualification in Australia?

- ☐ Yes (1)
- ☐ No (2)

D6a In which country did you obtain this qualification?

_____

D7 What is the highest level of education you have obtained to date (in any field)?

- ☐ Vocational Certificate (1)
- ☐ Associate Diploma (2)
- ☐ Diploma (3)
- ☐ Advanced Diploma (4)
- ☐ Associates Degree (5)
- ☐ Bachelors Degree (6)
- ☐ Graduate Certificate (7)
- ☐ Graduate Diploma (8)
- ☐ Masters Degree (9)
- ☐ Doctorate (10)

D8 What percentage of your practice as a paramedic (i.e. roles or jobs where you use paramedic skills and knowledge) are in each of the following areas at the time of this survey? Use the drop down boxes to choose a percentage for each relevant area. The boxes should add up to 100%.

Jurisdictional (state) ambulance service (1)	▼ NA (36) ... 0% (21)
Private provider of paramedic or health services (2)	▼ NA (36) ... 0% (21)
Not for profit or volunteer provider of paramedic or health services (3)	▼ NA (36) ... 0% (21)
Education organisation, including RTOs and universities (4)	▼ NA (36) ... 0% (21)
Australian Defence Force (5)	▼ NA (36) ... 0% (21)
Other organisations or roles (6)	▼ NA (36) ... 0% (21)

D9 If you do not currently work in a jurisdictional (state) ambulance service, have you ever worked in one (or an overseas ambulance service that undertakes similar emergency response work)?

- ☐ Yes (1)
- ☐ No (2)

D10 Which state or territory do you practice in as a paramedic? (If you practice in multiple states, choose the one where you practice most often)

- ☐ ACT (1)
- ☐ NSW (2)
- ☐ NT (3)
- ☐ QLD (4)
- ☐ SA (5)
- ☐ TAS (6)
- ☐ VIC (7)
- ☐ WA (8)

D11 Are you a member of a professional body? (i.e. Paramedics Australasia or the Australian New Zealand College of Paramedicine)

- ☐ Yes (1)
- ☐ No (2)

D12 Are you a member of a trade union?

- ☐ Yes (1)
- ☐ No (2)

Appendix 3: Survey Tool – 2021 Post-Registration Survey

Perceptions of professional registration in Australian paramedics – Post-registration survey

Preamble

Introduction

In 2018 paramedics in Australia were regulated under the National Registration and Accreditation Scheme for health professionals (The NRAS). This scheme is administered for paramedics by the Paramedicine Board of Australia (The Board) and the Australian Health Professionals Regulation Agency (Ahpra). This survey seeks to explore the knowledge and views of Australian paramedics regarding professional registration. The aim of this survey is to help understand the experience of paramedics navigating the relatively new registration framework. This study is part of a PhD project being undertaken by Buck Reed at the University of Wollongong School of Medicine supervised by Prof. Ian Wilson, Dr Leanne Cowin and Prof. Peter O'Meara.

To undertake this survey you must:

1) Be registered as a paramedic under Ahpra and the PBA, AND

2) Practice in Australia (using any definition of practice in the Currency if Practice Standard including clinical practice, research, teaching, management etc.) or hold a Non-Practicing registration.

This is an anonymous survey. The full details of the study are contained in the participant Information on the next page.

You can go back and change answers at any time. If you want to qualify or explain an answer to a question you can do so in various text boxes during the survey including a general text box at the end of Section 3.

Start of Block: PIS

PIS1 **Participant Information**

PURPOSE OF THE RESEARCH

Paramedics play a critical part in the health of the community. Paramedics perform a range of roles, most commonly, the response to health emergencies. On 1 December 2018, paramedics became regulated under the National Registration and Accreditation Scheme for health professionals (the NRAS). Paramedicine became the fifteenth profession to enter this scheme and one of the very few that did not have a previous regulatory framework in place. This creates a unique opportunity to study how a whole profession transitions into a new regulatory system. Understanding the impact of registration on paramedics is also critical to understanding the development of the profession.

As a paramedic, your thoughts and feelings about registration are important. By surveying paramedics after registration has been implemented, we may better understand how paramedics think and feel about registration and learn about how paramedics have navigated the new regulatory environment. This data will help track the development of the profession over time. This information will also potentially help researchers and the profession understand the impact of registration on paramedics themselves.

You are invited to participate in this survey and help provide data which may assist researchers in answering these critical questions about paramedicine. This survey is part of a PhD study by Buck Reed at the University of Wollongong School of Medicine. Contact and supervisor details can be found at the end of this information sheet.

METHOD AND DEMAND ON PARTICIPANTS

If you choose to participate, you will undertake an online survey using the Qualtrics platform. This survey will take approximately fifteen minutes to complete. The survey contains questions which present a range of pre-determined options and questions which ask for free text answers. The survey asks questions about your knowledge and perceptions of paramedic registration as well as collecting some demographic data. By participating you are consenting to a single stand-alone survey, and you will not be contacted by researchers again unless you opt in to be contacted at a later time to receive information about the survey results.

POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS

Aside from the use of your time, we do not foresee any risks or inconveniences to you if you participate in this research.

PARTICIPATION IS VOLUNTARY

This participant information sheet constitutes an invitation to participate in the research project. You may withdraw or decline to participate at any time by simply quitting the survey. You can also address any questions in email to the Co-investigator and Contact below. Please note that once a survey is submitted it is anonymous and cannot be identified to be withdrawn later.

CONFIDENTIALITY AND DATA

Your name, position, employer or location (other than state of practice) will not be collected. Any data or information that you incidentally provide in survey answers will be de-identified in analysis and publication. Any direct quotes will be made in publication using a generic identifier (e.g. "Respondent 429"). Reference will not be made to location or other similar demographic data which is collected. No identifiable data from these surveys will be shared with employers, regulators or any other third party. Any party which may coincidentally be aware of your participation such as an employer will have no knowledge of the nature of your participation or the answers you gave.

Data will be stored and managed in line with the University of Wollongong Research Data Management Policy. This policy outlines research data security. This policy can be found at: http://www.uow.edu.au/about/policy/UOW116802.html#P116_8359

This data will be used for academic publication, academic presentations and as part of a PhD thesis. Reports with overall findings may be shared with stakeholders such as professional bodies and regulators.

FUNDING AND BENEFITS OF THE RESEARCH

This research has been conducted with the support of the Australian Government Research Training Program Scholarship. There may be incidental in-kind support from regulators, employers or other bodies in promoting the research. This research may help to develop an understanding of how Australian paramedics are engaging with the upcoming registration process and may help understand the impact of registration on paramedics.

PAST SURVEY

This survey is the second of two linked surveys in the same PhD project. The first survey occurred just prior to paramedic registration in 2018. The data from this survey will be compared to data from the first survey. Each survey can be taken independently of the other. You do not need to have taken the first survey to participate in this one as the data is used to measure trends in the paramedic population rather than compare the results of individuals over time.

RESEARCHERS AND CONTACTS

- Mr. Buck Reed (PhD Candidate/Contact), School of Medicine, University of Wollongong, Australia: uowpararegresearch@gmail.com or bcr508@uowmail.edu.au
- Professor Ian Wilson, School of Medicine, University of Wollongong, Australia: ianwil@uow.edu.au
- Professor Peter O'Meara, DCEHPP, Monash University, Australia
- Dr. Leanne Cowin, School of Nursing and Midwifery, Western Sydney University, Australia

This research is part of a PhD project based in the School of Medicine, Faculty of Science, Medicine and Health at the University of Wollongong.

ETHICS REVIEW AND COMPLAINTS

This study has been reviewed by the Health and Medical Human Research Ethics Committee of the University of Wollongong (2018/462). Ongoing monitoring of the research is the responsibility of the researchers listed above and annual progress reports are submitted by the researchers to the UOW Research Ethics Unit. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UOW Ethics Officer on 61 2 4221 3386 or email rso-ethics@uow.edu.au.

Thank you for your interest in this study.

By clicking NEXT you are consenting to participate in the survey and the survey will begin.

Start of Block: Knowledge of Registration Process

Section 1 - This section asks questions about your knowledge of the registration process. Choose the statement which best reflects your view.

K1 How would you describe your knowledge of the current registration scheme for paramedics under the NRAS overall?

- ☐ I have no knowledge of it. (1)
- ☐ I have a little knowledge of it. (2)
- ☐ I have some knowledge of it. (3)
- ☐ I have a good knowledge of it. (4)
- ☐ I have an excellent knowledge of it. (5)

K2 How would you describe your knowledge of the Registration Standards applied to paramedics under the current registration scheme?

- ☐ I have no knowledge of them. (1)
- ☐ I have a little knowledge of them. (2)
- ☐ I have some knowledge of them. (3)
- ☐ I have a good knowledge of them. (4)
- ☐ I have an excellent knowledge of them. (5)

K3 How would you describe your knowledge of the process for managing serious complaints against paramedics (in your state or territory) under the current registration scheme?

- ☐ I have no knowledge if it. (1)
- ☐ I have a little knowledge of it. (2)
- ☐ I have some knowledge of it. (3)
- ☐ I have a good knowledge of it. (4)
- ☐ I have an excellent knowledge of it. (5)

K4 How accessible do you find information about the current registration scheme?

- ☐ Information is very hard to access. (1)
- ☐ Information is somewhat hard to access. (2)
- ☐ Information is neither hard nor easy to access. (3)
- ☐ Information is somewhat easy to access. (4)
- ☐ Information is very easy to access. (5)

K5 Why do you think paramedics were registered under the National Registration and Accreditation Scheme for health practitioners? Please type your answer in the text box below.

[Free Text Area]

K6
Are there any elements of registration that you have found it challenging to get information on or remain unclear to you? Please list or explain them in the text box below.

[Free Text Area]

K7 Since you became registered, how has your understanding of the regulatory scheme changed (if at all):

- ☐ I find registration much more confusing. (1)
- ☐ I find registration slightly more confusing. (2)
- ☐ I understand registration about the same. (3)
- ☐ I find registration slightly easier to understand. (4)
- ☐ I find registration much easier to understand. (5)

Start of Block: Perceptions

Section 2 - This section asks questions about your perceptions of registration. That is, your thoughts on different elements of registration and the impact of registration on patients and practitioners. Choose the statement which best reflects your view.

P1 Do you think that patients are safer now that paramedics are registered? (This refers to their overall safety, both in terms of their risk from poor clinical practice AND their risk from poor conduct or unqualified/underqualified practitioners).

- ☐ I think patients are substantially less safe now. (1)
- ☐ I think patients are slightly less safe now. (2)
- ☐ I think the level of safety to patients has not changed. (3)
- ☐ I think patients are slightly safer now. (4)
- ☐ I think patients are substantially safer now. (5)
- ☐ I am not sure if patient safety has changed. (6)
- ☐ I have no experience of patient safety before Australian paramedic registration to make a comparison to. (7)

P2 Do you think that paramedics are more individually accountable for their practice and behaviour now that paramedics are registered?

- ☐ I think paramedics are substantially less accountable now. (1)
- ☐ I think paramedics are slightly less accountable now. (2)
- ☐ I think the level of paramedic individual accountability has not changed. (3)
- ☐ I think paramedics are slightly more accountable now. (4)
- ☐ I think paramedics are substantially more accountable now. (5)
- ☐ I am not sure if individual accountability has changed. (6)
- ☐ I have no experience of accountability before Australian paramedic registration to make a comparison to. (7)

P3 Paramedic registration has changed the way major complaints against paramedics are handled. Do you think this change has affected the fairness of this process (if at all) now that paramedics are registered?

- ☐ I think major complaints against paramedics are handled substantially less fairly. (1)
- ☐ I think major complaints against paramedics are handled slightly less fairly. (2)
- ☐ I think the level of fairness in how major complaints against paramedics are handled has not changed. (3)
- ☐ I think major complaints against paramedics are handled slightly more fairly. (4)
- ☐ I think major complaints against paramedics are handled substantially more fairly. (5)
- ☐ I am not sure if major complaints handling has changed. (6)
- ☐ I don't have experience of complaints handling before Australian paramedic registration to make a comparison. (7)

P4 Looking forward, do you think that the variety of employment opportunities for paramedics (that is, the roles and organisations paramedics can work in) is changing following registration?

- ☐ I think the variety of employment opportunities for paramedics will decrease substantially. (1)
- ☐ I think the variety of employment opportunities for paramedics will decrease slightly (2)
- ☐ I think the variety of employment opportunities for paramedics will not change. (3)
- ☐ I think the variety of employment opportunities for paramedics will increase slightly. (4)
- ☐ I think the variety of employment opportunities for paramedics will increase substantially. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P5 Looking forward, do you think that the scope of practice for paramedics (that is, the range of clinical treatment options) will change now that paramedics are registered?

- ☐ I think the scope of practice for paramedics will decrease substantially. (1)
- ☐ I think the scope of practice for paramedics will decrease slightly (2)
- ☐ I think that the scope of practice for paramedics will not change. (3)
- ☐ I think the scope of practice for paramedics will increase slightly. (4)
- ☐ I think the scope of practice for paramedics will increase substantially. (5)
- ☐ I don't feel I have enough information to have an opinion if this will change. (6)

P7 What do you think the effects of registration on the profession of paramedicine have been so far? (These effects can be positive or negative.) Please type your answer in the text box below.

[Free Text Area]

P8 What do you think the effects of registration on the profession of paramedicine will be in the future? (These effects can be positive or negative.) Please type your answer in the text box below.

[Free Text Area]

Start of Block: Personal Impact

Section 3 - This section asks questions about how you feel registration has impacted you personally.

I1 Overall, what statement best describes your feelings about the introduction of paramedic registration in Australia? (Choose the statement which best reflects your view).

- ☐ I am strongly unsupportive of paramedic registration. (1)
- ☐ I am slightly unsupportive of paramedic registration (2)
- ☐ I am neither supportive nor unsupportive of paramedic registration. (3)
- ☐ I am slightly supportive of paramedic registration. (4)
- ☐ I am strongly supportive of paramedic registration. (5)
- ☐ I don't feel I have enough information to have an opinion on this. (6)

I4 What do you think the impacts of registration are on you personally as a health practitioner? (These may be financial, educational, the way you practice, or anything which you think has changed for you as an individual). Please type your answer in the text box below.

[Free Text Area]

I5 You can use this space to share anything additional about registration and the implementation of registration (either in terms of your personal situation or for the profession as a whole). This may include any other thoughts or opinions you have about registration which have not been covered by previous questions.

[Free Text Area]

Start of Block: Identity

Section 4 - These questions ask about how you identify yourself as a paramedic.

T1 Consider what you feel makes you a paramedic. Please indicate for each the following characteristics how important you think they are to your identity as a paramedic using the statements provided. You may assign the same level of importance to multiple characteristics.

	Not important to my sense of who I am as a paramedic (1)	Slightly important to my sense of who I am as a paramedic (2)	Somewhat important to my sense of who I am as a paramedic (3)	Very important to my sense of who I am as a paramedic (4)	Extremely important to my sense of who I am as a paramedic (5)
Professional registration (1)					
The qualification you obtained to be a paramedic (2)					
Being employed as a paramedic (3)					
Being part of a community of practitioners (4)					
Your scope of practice (5)					

T2 Are there any things not mentioned in the options above which are part of how you identify yourself as a paramedic? Feel free to add any other thoughts you have about your identity in the text box below.

[Free Text Area]

T3 Do you think that being professionally registered has changed the way that you identify yourself as a paramedic?

- ☐ Definitely not (1)
- ☐ Probably not (2)
- ☐ I don't know (3)
- ☐ Probably yes (4)
- ☐ Definitely yes (5)
- ☐ I have only ever been registered as a paramedic (6)

T5 Do you think that being professionally registered has changed the way that members of other health professions view you and/or interact with you as a paramedic?

- ☐ Definitely not (1)
- ☐ Probably not (2)
- ☐ I don't know (3)
- ☐ Probably yes (4)
- ☐ Definitely yes (5)
- ☐ I have only ever been registered as a paramedic (6)

Start of Block: Experience

E1 When you registered, which path did you register through?

- ☐ Approved or Accepted Qualification (Not as a graduate applicant) (7)
- ☐ Graduate Application (Prior to practice normally immediately after study) (4)
- ☐ Grandparenting Pathway 1 (Adequate Qualification) (1)
- ☐ Grandparenting Pathway 2 (Combination of qualification and supervised practice/additional training) (2)
- ☐ Grandparenting Pathway 3 (Competency to practice) (3)
- ☐ Other (6)

E2 How would you describe your experience of the process of becoming a registered by Ahpra?

- ☐ It was very difficult. (1)
- ☐ It was somewhat difficult. (4)
- ☐ It was neither easy not difficult. (5)
- ☐ It was somewhat easy. (6)
- ☐ It was very easy. (7)

E3 What is your experience of meeting the Continuing Professional Development requirements of registration?

- ☐ It is very difficult. (1)
- ☐ It is somewhat difficult. (4)
- ☐ It is neither easy nor difficult. (5)
- ☐ It is somewhat easy. (6)
- ☐ It is very easy (7)

E4 What is your experience of meeting the Currency of Practice requirements of registration?

- ☐ It is very difficult. (1)
- ☐ It is somewhat difficult. (4)
- ☐ It is neither easy not difficult. (5)
- ☐ It is somewhat easy. (6)
- ☐ It is very easy (7)

Start of Block: Demographics

Head **Section 5 - Just to finish, please provide some details about yourself.**

D1 Please indicate your age at your last birthday in years. (Number only)

[Free Text Area]

D2 Please indicate your gender.

- ☐ Male (1)
- ☐ Female (2)
- ☐ Other (3)
- ☐ Not stated/Inadequately described (4)

D3 Please indicate how many <u>years</u> you have practiced as a paramedic. If you qualified prior to 2018 this means how long since you finished your qualification or were able to use your full scope independently

If you qualified in or after 2018 this means how many long you have been registered and used paramedic skills or knowledge

Express this as a number of years (you can use decimals).

[Free Text Area]

D5 What level of qualification did you obtain to become a paramedic?

- ☐ Vocational Certificate (1)
- ☐ Associate Diploma (2)
- ☐ Diploma (3)
- ☐ Advanced Diploma (4)
- ☐ Associates Degree (5)
- ☐ Bachelors Degree (6)
- ☐ Graduate Certificate (7)
- ☐ Graduate Diploma (8)

D6 Did you obtain this qualification in Australia?

- ☐ Yes (1)
- ☐ No (2)

D6a In which country did you obtain this qualification?

[Free Text Area]

D7 What is the highest level of education you have obtained to date (in any field)?

- ☐ Vocational Certificate (1)
- ☐ Associate Diploma (2)
- ☐ Diploma (3)
- ☐ Advanced Diploma (4)
- ☐ Associates Degree (5)
- ☐ Bachelors Degree (6)
- ☐ Graduate Certificate (7)
- ☐ Graduate Diploma (8)
- ☐ Masters Degree (9)
- ☐ Doctorate (10)

D8 Describe your employment/engagement in each sector of paramedicine practice (i.e. roles or jobs where you use paramedic skills and knowledge). Use "Other Role" for any non-employment role such as HDR Student which do not fit into employment or volunteering but meet the definition of "Practice",

	Employed Full Time (1)	Employed Part Time (2)	Employed Casually (3)	Volunteer (4)	Other Role (5)	Not engaged in this area (6)
Jurisdictional (state) ambulance service (1)						
Private provider of paramedic or health services (2)						
Not for profit or volunteer provider of paramedic or health services (3)						
Education/Research organisation, including RTOs and universities (4)						
Australian Defence Force (5)						
Other organisations or roles (6)						

D9 What percentage of your practice as a paramedic (i.e. roles or jobs where you use paramedic skills and knowledge) are in each of the following areas at the time of this survey? Use the drop down boxes to choose a percentage for each relevant area.

The boxes should add up to 100%.

	0% (21)	100% (1)	95% (2)	90% (3)	85% (4)	80% (5)	75% (6)	70% (7)	65% (8)	60% (9)	55% (10)	50% (11)	45% (12)	40% (13)	35% (14)	30% (15)	25% (16)	20% (17)	15% (18)	10% (19)	5% (20)
Jurisdictional (state) ambulance service (1)																					
Private provider of paramedic or health services (2)																					
Not for profit or volunteer provider of paramedic or health services (3)																					
Education organisation, including RTOs and universities (4)																					
Australian Defence Force (5)																					
Other organisations or roles (6)																					

D10 Which state or territory is your Principal Place of Practice as a paramedic? (This is as per your Ahpra registration.)

- ☐ ACT (1)
- ☐ NSW (2)
- ☐ NT (3)
- ☐ QLD (4)
- ☐ SA (5)
- ☐ TAS (6)
- ☐ VIC (7)
- ☐ WA (8)

D11 Are you a member of a professional body? (i.e. Australasian College of Paramedicine)

- ☐ Yes (1)
- ☐ No (2)

D12 Are you a member of a trade union covering paramedics?

- ☐ Yes (1)
- ☐ No (2)