BECOMING A PARAMEDIC:

THE EXPERIENCES OF NEWLY QUALIFIED PARAMEDICS IN NAVIGATING A CHANGING PROFESSIONAL, SOCIAL AND PERSONAL IDENTITY

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Copyright Statement

Abstract

Introduction

The transition process for newly qualified paramedics may be emotionally turbulent. Evidence suggests as they socialise into the workforce they face issues around confidence, anxiety and attrition. These difficulties may lead to poorer resilience. This study sought to understand the experiences of newly qualified paramedics as they transition into the ambulance service workforce.

Methods

The study used a longitudinal mixed-methods convergent design, with a social constructionist underpinning. Quantitative and qualitative data were collected simultaneously and triangulated to more fully interpret participants' experiences. Data was collected at three time periods over one year. A convenience sample of 18 newly qualified paramedics from one ambulance trust was used. The Connor-Davidson Resilience 25-point scale questionnaire (CD-RISC25) was administered and analysed using descriptive statistics. Semi-structured interviews were conducted simultaneously and analysed using Charmaz's constructivist grounded theory approach.

Findings

There was a range of resilience scores with individuals displaying different pathways through the transition process. The mean CD-RISC scores were T1: 74.7 (SD 9.6). T2: 73.8 (SD 9). T3: 75.4 (SD 6.8). Factors related to social support were consistently scored highly, and factor relating to determinism were consistently scored lower.

Qualitative data constructed a process whereby participants were navigating a changing identity across three spheres simultaneously: professional, social and personal identity. Participants who found the process particularly turbulent generally displayed lower resilience scores.

Conclusion

This study emphasises the importance of identity in the transition of newly qualified paramedics. It emphasises the social process and uses social identity theory as a theoretical framework for understanding the challenges faced.
Interventions which support the newly qualified paramedic in navigating and understanding this change in identity may improve resilience and self-efficacy. Pre-registration curricula needs to consider issues of identity in preparing students for realities of work. Interventions such a peer supervision has supported this in other healthcare professions. Further research is needed to understand the impact of these interventions.

Table of Contents

List of Figures

List of Tables

Glossary of Terms

ACPs	Advanced Clinical Practitioners
CD-RISC	Connor-Davidson Resilience Scale Questionnaire
BSc (Hons)	Bachelor of Science with Honours
ECA	Emergency Care Assistant
EMTs	Emergency Medical Technicians
GPs	General Practitioners
HCPC	Health and Care Professions Council
IHCD	Institute of Health and Care Development
NHS	National Health Service
NQP	Newly Qualified Paramedic
PEEP	Paramedic Evidence-Based Education Project
PTSD	Post-Traumatic Stress Disorder
RePAIR	Reducing Pre-Registration Attrition and Improving Retention
TRiM	Trauma Risk Management
UK	United Kingdom
USA	United States of America

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Author's Declaration

Work from this thesis has been presented in a peer reviewed journal and in conference presentations.

Journal Article

Phillips, P. and Trenoweth, S., 2023. Crossing the 'flaky bridge' - the initial transitory experiences of qualifying as a paramedic: a mixed-methods study. *Br Paramed J*, 8 (1), 18-27

(See appendix 1)

Conference Presentations

Phillips, P., Trenoweth, S., Eales, S. 2019. What Factors Affect Resilience in UK Paramedics? A Structured Literature Review. *In: EMS 2019* 26-28 April 2019 Madrid, Spain.

Phillips, P., Trenoweth, S. 2017. Stress and Coping: Exploring the nature of resilience in UK Paramedic Practice. *In: EMS Gathering 2017* 3-5 May 2017 Kinsale, Ireland. *Irish Journal of Paramedicine*, 2 (1).

CHAPTER 1: Prologue - Personal Perspectives, Experiences and Reflexivity

1.1 Introduction

This thesis begins with a section which explains and reflects on my professional background and my occupational experiences. This study used a social constructionist epistemology which emphasises the importance of historical, social and cultural factors in how individuals construct meaning about their experience of the world. It emphasises the social processes that occur during this meaning-making. Constructivist grounded theory was used for the qualitative aspect of this mixed-method study which also emphasises the shared construction of meaning of experiences between researcher and participant. These factors emphasise the necessary influence of the researcher in constructing meaning from participants' experiences and therefore it is important to highlight and reflect on my experiences and perspective, to understand and be transparent about how my own experiences may influence findings and conclusions.

1.2 My Background

I started my training to be a paramedic in 2005. I was 19 years old and enrolled on a BSc (Hons) Paramedic Science programme, which had a sandwich year as a year in employment. At the time the university route to become a paramedic was very new, and there were only two universities in the United Kingdom (UK) which offered this route. The traditional in-house, apprenticeship-type training model to become a paramedic was the dominant route, called the Institute of Health and Care Development (IHCD) (Lovegrove 2013). At university we were still required to undertake the IHCD award alongside our degree programme and this has meant I'm in a unique position where I have first-hand experience of being a student on a BSc (Hons) programme and the IHCD programme.

After graduating from university as a paramedic I worked with the London Ambulance Service, where I had undertaken my clinical placements. In 2011, I relocated to Dorset and worked as a paramedic. There was a stark difference between the cosmopolitan, urban London and rural Dorset. Although clinically the role of the paramedic was the same, culturally working as a paramedic was very different and this took some getting used to.

I trained as a specialist paramedic in 2013 which gave me the knowledge and skills to manage lower acuity patients within the community. As part of my role, I would undertake visits for General Practitioners (GPs) in the out-of-hours period and could supply medicines such as antibiotics for infections. I found this role challenging but rewarding and it sparked more of an interest in urgent and primary care, rather than emergency, life-threatening care.

I applied to become a lecturer in Paramedic Science at Bournemouth University in 2014. When I took up post at university, I did not have any experience of teaching. My only frame of reference was the way that I had been taught myself whilst a student at university. I undertook a formal higher education teaching qualification by completing a Post-Graduate Certificate in Education Practice. This gave me a keen interest in education practice, and combining my professional experience as a paramedic with my evolving education practice has given me a good basis for educating paramedic students. I have since successfully been awarded the Senior Fellowship of the Higher Education Academy in recognition of leadership in education practice.

During that time, I have undertaken many roles within this post such as admissions lead, programme lead and unit lead for many units. I have also been involved with other aspects of the university such as being on the department Athena Swan group (a group about workplace equality) and a panel member for the Higher Education Academy portfolio teaching award.

The following sections will explain and reflect on how my experiences throughout my career have impacted my view of paramedic practice, education and research, as a basis for understanding the motivation for this thesis and as a basis for understanding my position within this research.

1.3 Perceptions as a Paramedic

There is a common conception amongst outsiders (meaning non-paramedics and non-ambulance staff, those outside of the UK NHS ambulance service) that being a paramedic must be emotionally difficult specifically because of the trauma to which paramedics are exposed. Firstly, exposure to trauma and to life-threatening illnesses and injuries account for a very small aspect of ambulance work (Newton et al. 2020). Secondly, my experience has been that attending to traumatic and life-threatening incidents is less emotionally difficult than some other aspects of being a paramedic. I believe that this was also the case for many of my colleagues in the ambulance service.

I was regularly exposed to patients who were experiencing mental health challenges, were stuck within a healthcare system that may not have been as responsive as they needed it to be, and I felt there was very little I could do to help acutely. I was exposed to older people who were lonely, who had no family or social interaction. Again, there was very little I felt I could do to help them in a meaningful way. These sorts of patient interactions were more emotionally difficult for me to deal with, but there was very little or no routine support for this sort of incident.

However, the support services within the ambulance service were set up to support staff who had been to traumatic incidents and as such were at increased risk of developing Post Traumatic Stress Disorder (PTSD). The TRiM (Trauma Risk Management) programme was implemented across ambulance services nationally to try to recognise staff who were at risk of developing PTSD and refer them to appropriate therapies (Association of Ambulance Chief Executives 2015). Whilst this is important, I felt it was small part of a wider package of support that was needed for staff for a range of emotional difficulties, and it somewhat missed the point of the difficulties that ambulance staff may face on a day-to-day basis.

These issues were complicated by the organisational culture of the ambulance service, where I felt psychological support was not high on the agenda. In my experience, contact with managers was usually based around conversations about

meeting target times. For example, you had to start responding to an emergency within 45 seconds of receiving the call, you were required to spend less than 15 minutes at hospital handing over a patient. Conversations with managers were not centred around the quality of care provided or around psychological wellbeing.

Much of the psychological support was informal from colleagues within the crew room. However, as call rates increased there was very little time spent on station, and even less time spent on station with a group of colleagues being able to have informal conversations. This was compounded for me in latter years because I was working on my own in a response car as I trained and started working as a specialist paramedic. I regularly spent a whole shift without seeing colleagues in an informal capacity. I found working in isolation to be difficult for these reasons.

Towards the end of my time in the ambulance service I increasingly felt that I was not having a meaningful impact on peoples' lives, and this led to a decrease in my job satisfaction. Although objectively of course I was helping people at their time of need, and to an outsider it may seem incongruous that I might feel this way, it was nevertheless how I felt. There were very little other opportunities for me to progress clinically as a paramedic within the ambulance service, but the opportunity came up to start to work at a higher education institute which I took. Reflecting on my journey within the ambulance service I feel that had there been some more directed wellbeing input then I may have retained job satisfaction, had some more understanding of my emotions, and stayed working in the ambulance service. I think that I was experiencing symptoms of burnout because of the emotional demand, cultural issues in the ambulance service and lack of psychological understanding or support. I hope that through my role as an educator and researcher that future paramedics may be better placed to be able to manage the role in a positive way.

1.4 Perceptions as an educator

A little over a year after I started working at university, I was appointed programme lead for the Paramedic Science course. This led to important insights for me into the wellbeing of ambulance workers and aspirant paramedics as a result of this role. As

an educator of aspirant paramedics, I had overall responsibility for taking students on a journey from year one to qualifying as a paramedic. It seemed to me that students can encounter a myriad of difficulties on their programme. Students bring with them their own experiences in life. This includes positive experiences but also their own difficulties which can have an impact on their wellbeing as they progress through the programme.

The first ambulance placement is a potentially difficult time for students. Most students will not have been on an ambulance before, so they do not know exactly what to expect, and they often told me that they worry about fitting in and making a good impression. When students return to university from that first placement there is often a change in attitude, approach and language in relation to the role, perhaps as they view paramedics in practice as role models. There are professional expectations of all practitioners working the National Health Service (NHS) which centre around being patient-centred, and communicating with empathy and compassion (NHS England 2023). These values also align strongly with my own personal and professional values. The role modelling that students often experience in practice placement, however, leads students to adopt behaviours which do not always reflect these values.

Whilst on placement in ambulance services, the lecturing team get informed if a student attends a traumatic incident so that we can follow up in terms of wellbeing support. However, the more insidious stressors that have been discussed above may occur and go unnoticed. This is because students sometimes get the impression that the culture expects you to be able to cope with the demands of the role and the organisation, and this can discourage them from seeking support. That is, there is still stigma attached to seeking support and, although this is diminishing, there is still a cultural expectation that one should be able to cope with the demands of the role because they have chosen this role.

Towards the end of the students' programme, they start to look towards qualifying as a paramedic. Each year there is a palpable anxiety that occurs collectively as students start to worry about how they might cope as a qualified practitioner. We have tried to implement various methods of supporting them in these final few

months at university, but with a lack of research and practice around this transition for paramedics it is very difficult to know how to implement something meaningful.

As an educator, I have observed the turbulence that can occur as students progress from year one of their programme to the transition to newly qualified paramedic and want to be better placed to support them in a meaningful way through curriculum design and interventions.

1.5 Perceptions as a researcher

My interest in the wellbeing of paramedics has stemmed from my personal experiences as a paramedic and as an educator of paramedics. Upon looking at the existing research around paramedics' ability to positively cope with their experiences, that is their resilience, it is clear that it was heavily focussed on explicit and severe stressors such as psychological trauma and major depression. This is reflected in the support services that have been implemented in ambulance services. Another noteworthy point is that much of the research has been performed by non-paramedics and researchers with no experience of working within ambulance services (outsiders), and to the outsider the obvious aspect to research is the trauma to which paramedics are exposed. However, I have highlighted that, as an insider (a paramedic that has experience of working in ambulance services), the issue of wellbeing amongst paramedics is much more multi-faceted, complicated and perhaps more insidious than it first appears to the outsider. I also noted that much of the research conducted around paramedic wellbeing is quantitative in design. When considering undertaking a PhD and reading around the topic, I felt that often these designs meant that nuances about issues such as culture, transition experiences and socialisation were not accounted for in the research.

There is agreement that attrition and retention of staff is a problem for ambulance services (Health Education England 2021). This is important on an individual level to paramedics that they are able to have a satisfying career. It is also important on a service delivery level because a shortage of paramedics places strain on services and extra pressure on existing staff.

I wanted to produce a thesis that is meaningful and impactful in supporting paramedics as they embark on their career. As a result, I wanted to design a PhD study that studied the complicated and multi-faceted experience of newly qualified paramedics, acknowledging the complexity of this issue.

1.6 Summary

This chapter has explained and reflected on my experiences as a paramedic, an educator, and a researcher. It has charted my experiences of managing my own wellbeing as a paramedic and how that ignited an interest in the topic of paramedic wellbeing. It has described how my role as an educator has led me to consider the wellbeing of students as they transition into the workforce, and my desire to make a meaningful difference to their ability to stay psychologically well in their career. Finally, I described how my experiences moulded the way in which I approached this research, and this will be evident in the methodology and design of this research in chapter three.

At the end of each chapter there is a section entitled ‘personal reflections on the chapter’. In this section I will reflect on my thoughts and feelings in relation to the content of the chapter and my experiences as a paramedic, educator and researcher. Exploring this will help me to understand my position within the research by making biases and preconceptions overt. It is hoped that this strengthens the quality of the research.

The following chapter will introduce the thesis before giving the background and context to ambulance work and to the issues that newly qualified paramedics may face as the transition into the workforce.

CHAPTER 2: Introduction

2.1 Overview

This study is a longitudinal mixed-methods study designed to explore the experiences of newly qualified paramedics as they start their careers in the ambulance service, and how those experiences impact on their personal coping abilities and resilience. It uses a social constructionist philosophical underpinning to contextualise the problem, design the research, analyse findings and discuss the significance. The thesis is arranged into six chapters, including to the previous chapter one.

Chapter two, the current chapter, explores the context in which newly qualified paramedics work in the ambulance service. It explores the history of the UK ambulance service, the changing education requirements for paramedics and the newly qualified paramedic preceptorship programme that participants will be experiencing. It then looks at the issues that are facing the ambulance service: culture, retention of staff, and staff wellbeing, along with the context with which participants will be operating and the historical and cultural reasons for this context. Finally, it explores the conceptualisation of resilience. It identifies how there are conceptual difficulties in defining resilience and proposes a model of resilience which will be used to underpin aspects of this study.

Chapter three presents literature reviews in relation to two important topics for this study. Firstly, issues are explored in the literature relating to resilience in the context of paramedics. Secondly, the evidence around socialisation of newly qualified practitioners is discussed. The chapter finishes by highlighting gaps in the understanding of the experiences of newly qualified paramedics, particularly in relation to resilience.

Chapter four starts by presenting the overall aim of the study and the research questions. It then presents the methodology of this study. It describes and justifies social constructionism as the underpinning philosophy, and how constructivist

grounded theory will be used to inform data collection and analysis. It justifies the mixed methods design and describes the ways in which the methods will be mixed.

It then explains the methods of the study. In a longitudinal way semi-structured interviews will be used to collect qualitative data and a resilience questionnaire used to collect quantitative data.

Chapter five presents the results of the study. It highlights the main theory that was constructed from the data and mixes this with the quantitative data to give a richer understanding of participants' experiences.

Chapter six discusses the significance and relevance of the findings and presents wider literature to help contextualise and understand participants' experiences further. The discussion concludes by suggesting interventions to improve newly qualified paramedics' experiences and areas for further research. The epilogue to the thesis is then presented. It will reflect on the research study, its' findings and the significance to the personal experiences of the researcher.

2.2 Context of Paramedic Work

2.2.2 Introduction

This study explores the experiences of newly qualified paramedics who were working within the United Kingdom's (UK) National Health Service (NHS) ambulance service. This section explores the history of the ambulance service and the evolution of the paramedic profession. It traces the profession from the inception of paramedics, who mainly provided transportation to the most unwell life-threatening problems, to the modern paramedic, who assesses, manages and treats a range of presentations across the health and social care spectrum. Exploring this change in context is important in understanding the background to the experiences that paramedics have whilst working in the ambulance service. Understanding the historical context of the ambulance service will also help to understand the culture within which ambulance service paramedics work. This is important to contextualise

the socio-cultural setting that newly qualified paramedics will be exposed to when they enter the workforce.

The historical, social, cultural and economic factors are emphasised in this section because this thesis is presented from a social constructivist viewpoint, which emphasises the effect that these factors have on how people experience the world.

2.2.2 History of the Ambulance Service

The National Health Service Act (1946) gave county councils a statutory responsibility to provide an ambulance service. Most of the early work of ambulance workers was to transport people to and from hospital, with ambulance workers able to provide basic first aid. Ambulance workers were very much drivers and manual labourers. This concept of ambulance work still echoes today. Indeed, McCann et al. (2013) noted in the early 2010s that the culture within ambulance services was such that there was a resistance to the professionalisation agenda and the culture was trying to hold onto the blue collar roots. This resistance to professionalism is still shown to be present within ambulance services (Newton et al. 2020). In the 1960s, the dominant work of the ambulance service was that it responded to the seriously ill and injured, provided basic first aid, and transported patients to hospital.

Through the 1970s and 1980s the potential of paramedics delivering life-saving interventions for the critically ill gained traction, and paramedics were equipped with airway adjuncts, drugs and defibrillators to manage advanced cardiac care (Newton and Hodge 2012a). The first paramedic courses were delivered with the understanding that these blue collar workers could be trained to undertake some more advanced, life-saving critical care procedures, and that delivering these procedures in the ‘field’ may save more lives (Newton and Hodge 2012a). However, there were still not a national standard of care, or a standardisation of the model of ambulance service delivery. These first paramedics were localised to the South-East of England, although it did provide a ‘proof-of-concept’ that ambulance workers, who were largely considered manual labourers and first aiders, were capable of delivering this level of care in the pre-hospital environment.

At the same time in the United States of America (USA), the Vietnam War was providing a 'proof-of-concept' that previously non-medical soldiers could be trained in more advanced skills and deployed in the field to save lives (Edgerly 2013). A report in 1965 highlighted accidental injury as the leading cause of death for civilians in the first half of life and recommended that emergency personnel be trained to deliver life-saving interventions leading to a national curriculum for emergency medical technicians (EMTs). It was in the early 1970s that EMTs were trained to deliver more advanced care and, akin to paramedic counterparts developing in England, EMT-Paramedics were trained to deliver advanced airway management, drugs and advanced cardiac care. One of the pioneers of the developments of the national curriculum for EMT-Paramedics in the USA, Nancy Caroline, also wrote the seminal textbook for paramedics called Emergency Care in the Streets (Caroline 1979). This textbook served as a training manual for paramedics and still dominates textbook literature today in the field. The development of the USA EMT-Paramedic is important in the context of the profession because it heavily influenced the development of the profession in the United Kingdom and the identity of the paramedic.

The philosophy of ambulance work as predominantly a life-saving service influenced the development of the paramedic through the 1990s in the UK. Paramedics were increasingly equipped to deal with a wider range of emergencies by equipping them with more drugs and equipment to manage emergencies such as strokes, chest pain, breathlessness and major trauma (Newton and Hodge 2012a). In 1998 a national training programme began to train paramedics, called the Institute of Health Care and Development programme (IHCD) (Petter and Armitage 2012). This programme was skills-orientated, originating from the same philosophy of the ambulance service that had dominated since its' inception (Petter and Armitage 2012).

Paramedics became regulated in 2001 with the (then) Health Professions Council. This was in response to the evolving professionalisation of paramedics, and the need to set threshold standards for registrants (Newton and Hodge 2012b).

It was in the early 21st Century that the paradigm of ambulance service work began to shift. The Bradley Report (Department of Health 2005) 'Taking Healthcare to the

Patient' acknowledged that ambulance services were no longer predominantly responding to life-threatening emergencies. This type of call now made up a very small proportion of the calls received by services. This report heralded a change in philosophy for ambulance services from an emergency service that would stabilise and transport critically ill patients, to a service that would respond to a wide range of issues within the community and aim to appropriately manage and refer patients without, necessarily, conveyance to hospital. This paradigm shift sought to empower ambulance services to provide high quality call handling and telephone advice (termed 'hear and treat'), and to provide safe and effective mobile healthcare (termed 'see and treat').

Additionally, when paramedics were faced with a critically unwell patient, they were starting to become more sophisticated in choosing a destination hospital to expedite the pathway for patients. The National Confidential Enquiry Into Patient Outcomes and Deaths (2007) report 'Trauma: Who Cares?' found that many preventable deaths were occurring as a result of trauma in the community. It heralded the formation of the major trauma network which would mean that patients who had experienced a major trauma would be conveyed to a specialist hospital, not just the nearest hospital as was current practice. Similarly, the London Ambulance Service, at around the same time, had established a network of heart attack centres where patients experiencing a heart attack would be fast tracked to receive the gold standard treatment of primary coronary angioplasty (London Ambulance Service 2023). Again, local hospitals would be bypassed by paramedics to access specialist pathways for these types of patients. This put more emphasis on the paramedic's assessment and decision-making skills, and relied on paramedics making accurate, autonomous diagnoses (London Ambulance Service 2023).

This vision for the ambulance service would require significant input into the education of paramedics. The safe assessment, management and referral of patients in the community carries increased clinical risk and requires more in-depth assessment techniques and advanced clinical reasoning, amongst many other skills. Up until this point the education of paramedics was an 'in-house' apprenticeship-type model undertaking a national standard short course: IHCD. This short course curriculum was focussed around the 'traditional' workload of the paramedic which was how to deal with the critically unwell and life-threatening emergencies. Many

were starting to realise that the current training model was insufficient for the evolving role of the paramedic. In the climate of the ambulance service at the time of the Bradley Report there was, in this way, a disparity between the training content of the course and the type of patient that the paramedic would be expected to assess and manage (Newton et al. 2020). There was also a disparity between the role the paramedics were expecting to undertake, based on their training, and the role they were actually performing as an ambulance paramedic. The IHCD training prepared paramedics for managing life-threatening emergencies and therefore this formed the expectation of paramedics who were entering the workforce. The reality for paramedics was that this type of call made up a small proportion of the work and they felt increasingly underprepared for the majority of the work they were expected to undertake (Newton et al. 2020).

Up until this point paramedics were synonymous with the ambulance service. However, in recent years paramedics have started to work across the health service. This was further supported by the publication of the Keogh (2013) report into emergency and urgent care in England. The report emphasised the need for primary and urgent care to change their ways of working, to be available seven days per week, and highlighted how paramedics can be important in delivering this service. For this reason, there has been a particular divergence into primary and urgent care for paramedics (Eaton et al. 2020). The skillset of the modern paramedic appears to fit well with managing undifferentiated presentations in primary and urgent care. Many paramedics work in General Practice (GP) surgeries providing management of urgent and non-urgent conditions. As part of this there are pathways for paramedic to undertake level 7 Advanced Clinical Practice courses to become Advanced Clinical Practitioners (ACPs). In primary care this sees ACPs managing whole episodes of care of urgent, non-urgent and routine care episodes independently (Eaton et al. 2021). This includes being non-medical prescribers. Paramedic ACPs also work in other areas of the NHS, including emergency departments, ambulatory care and even in specialty medicine such as cardiac care and intensive care. ACPs also have responsibility across the four pillars of advanced practice: clinical, research, education and leadership (College of Paramedics 2021).

In recent years the role of consultant paramedic has become prominent across NHS organisations. A consultant paramedic makes significant and original contributions to

paramedic practice through leadership, research, education, clinical practice and service improvement. They are usually educated to doctoral level and may have strategic responsibilities for specific areas of the organisational work (College of Paramedics 2020).

The paramedic has changed significantly from the ambulance workers of the late 1940s. The 21st century professionalisation agenda was helped with registration of paramedics with the Health and Care Professions Council (HCPC). As well as this regulatory responsibility there was a tacit understanding that the paramedic role was evolving and paramedics were becoming increasingly autonomous and infiltrating all areas of the National Health Service, on a professional even footing with more established healthcare professionals such as nurses.

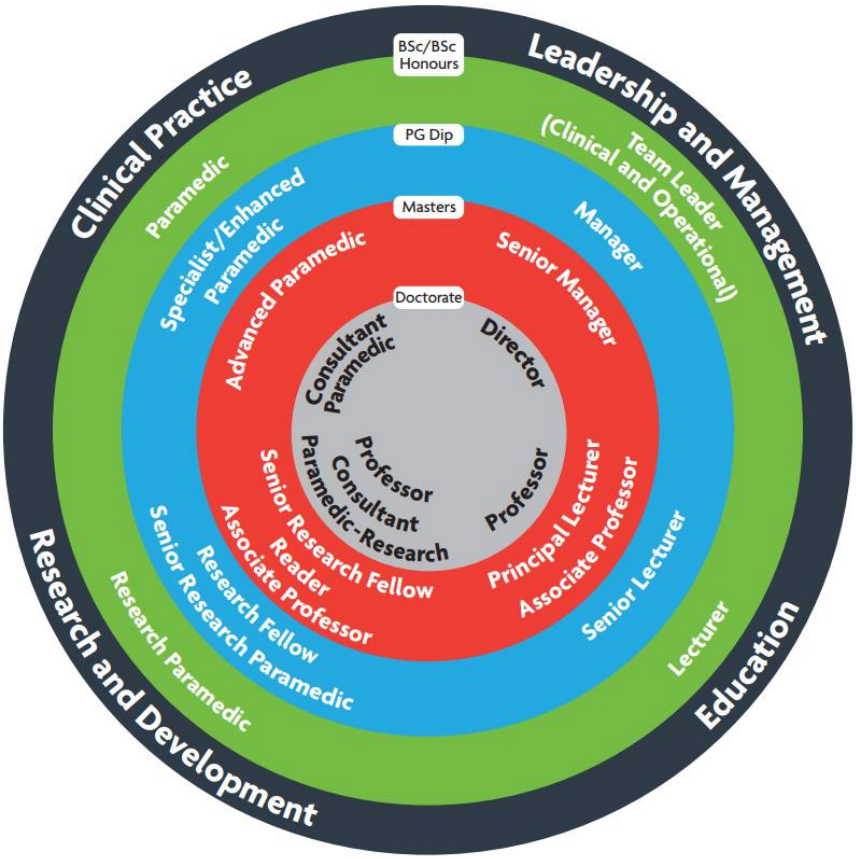
This professionalisation and diversification, however, resulted in difficulties in understanding what a paramedic's identity is. The College of Paramedics (2020) define a paramedic:

> "Paramedics are autonomous practitioners who are exposed to a potentially undifferentiated and unpredictable case-load of service users, undertaking a wide range of clinical assessment, diagnostic and treatment activities, as well as directing and signposting care. Paramedics work in a multitude of environments and care settings, either as a sole clinician or a contributory member of a wider health and social care team."

This definition explains, in broad terms, what a paramedic *does*. It does not explain what a paramedic *is*. Neither does it explain how one *becomes* a paramedic. It is apparent that paramedics working in different areas are likely to have their own sense of what their professional identity is. However, as discussed previously, the concept of a paramedic is still heavily influenced by the traditional role of the paramedic in the 1990s. This idea of identity will be featured heavily in this thesis.

This background to the ambulance service and the paramedic profession shows how there may be difficulties in conceptualising and unifying the identity of the paramedic profession. Figure 1 showing the College of Paramedics Career Framework identifies the heterogeneity of roles that paramedics may be undertaking across four pillars: clinical practice, leadership, research and education.

Figure 1 College of Paramedics' career framework (College of Paramedics 2022)



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2.2.3 Changing Education for Paramedics

This development in the paramedic scope of practice, autonomy and career progression has been underpinned by significant changes in the way that paramedics are educated.

The previous section has explored how there was a national standardised education for paramedics in the 1990s, the Institute for Health Care and Development (IHCD). In the early 2000s it was starting to emerge that the IHCD programme was not preparing paramedics for the majority of the workload. It was highly based on clinical skills, and focussed on life-threatening emergencies which made up a small proportion of work of the paramedic. The Bradley Report (Department of Health 2005) highlighted an increasing disparity between the IHCD education of paramedics

and the skills, knowledge and attributes required from the paramedic workforce (Lovegrove 2013).

University courses started in earnest for paramedics in the mid-2000s, partly in response to the Bradley Report and the emerging disparity between education and skills required. Initially most university courses offered a level 5 qualification (diploma in higher education/foundation degree) (Lovegrove 2013) which afforded the opportunity for newly qualified paramedics to develop academic skills to support clinical skills. Skills such as analysis of information, problem-solving and the ability to use evidence to inform practice. The Paramedic Evidence-Based Education Project (PEEP) report (Lovegrove 2013) highlighted the opportunity that exists for a more efficient healthcare system if paramedics became more highly educated and were able to manage more patients within the community. There would be benefits to patients because they would be managed in the most appropriate way, often without the need for going to hospital. There would be benefits to acute trusts who would see less patients through the doors of their Emergency Departments, and there would be benefits to the wider National Health Service because the cost of community care is less than the cost of a hospital admission. There were also benefits to the professionalisation of the paramedic profession who were to develop increasing autonomy and skills which were increasingly transferable across the healthcare system.

In the mid-2010s there were a mixture of entry levels onto the paramedic register. There were three different entry routes that people could take in order to become a paramedic. The IHCD route was still ongoing, and this route was generally accessed by ambulance staff who were already working on ambulances in a non-registered role who were upgraded to paramedic level. Universities had been running level five paramedic science programmes for some years and those that completed these programmes were eligible to be registered as a paramedic. These were foundation degrees or diploma of higher education courses. The third route was a level six Bachelor of Science (BSc) programme that would entitle graduates to register as a paramedic. There was a large growth in level six programmes in the mid-2010s because of the PEEP report educators and ambulance services were beginning to see the education landscape move towards a preference for level six education. Indeed, the PEEP report (Lovegrove 2013) aspired for the paramedic entry route to

be at a minimum of level six, consistent with most other allied health professionals, by 2020. This aspiration was realised in 2021 which meant the end of the IHCD and level five entry points onto the paramedic register. By this point all paramedics entering the register had to hold a degree-level qualification in paramedic science.

The professionalisation, increasing education and scope of paramedic practice saw the National Health Service recognise paramedics as working at band six of the agenda for change pay scale, rather than band five. The agenda for change (AfC) scale is a national pay scale that ensures consistency of pay for similar types of roles. All allied health professionals working in the NHS are paid according to the agenda for change band scale (Royal College of Nursing 2023). Most allied health professionals begin their career on AfC band five. AfC band six rewards experience, increasing autonomy and local leadership roles (Royal College of Nursing 2023). Therefore, moving paramedics to AfC band six recognised the autonomy, responsibility and complex decision-making that ambulance service paramedics were undertaking. This change for paramedics initiated a focus upon the newly qualified paramedic, acknowledging that there needed to be a period of increased support for the newly qualified paramedic to develop the autonomy, leadership and clinical decision-making expected at AfC band six. This was the start of the newly qualified paramedic preceptorship programme (National Health Service Employers 2017) discussed in the next section.

The mixture of education entry levels into the paramedic profession over the last thirty years (IHCD, Certificate of Higher Education, Diploma in Higher Education, BSc (Hons)) has created an environment within ambulance services where paramedic colleagues have different levels of education. Therefore, the workforce are an eclectic mix of education levels and experiences as a paramedics which may be important in considering the experience of newly qualified paramedics as they transition into the workforce.

2.2.4 The Newly Qualified Paramedic Preceptorship Programme

In 2017 the newly qualified paramedic preceptorship programme was initiated. This is a two-year period where the newly qualified paramedic consolidates their pre-qualifying learning. Newly qualified paramedics start their career on AfC band five.

This programme is designed to support them to develop the skills to meet the requirements of AfC band six after the two-year preceptorship period. During this period, they receive increased clinical support in managing patients for whom there is an increased clinical risk. There are pre-defined patient groups for whom, if the newly qualified paramedic (NQP) is not conveying the patient to hospital, they must consult a senior colleague to discuss the case. This supports the NQP in decision-making for potentially more complex cases. An example of this is an older person who has fallen but does not have any injury, because older people have a higher risk of co-morbidities and complications (National Health Service Employers 2017). During this period the NQP takes responsibility for their continued learning by producing a portfolio of learning and must submit this portfolio at intervals throughout their NQP programme (National Health Service Employers 2017). They also receive regular reviews of performance during the 24-month period to identify any additional learning that they would benefit from. At the end of the period, they will progress onto agenda for change Band six. The NQP period is designed to support the paramedic to become increasingly autonomous throughout the two years and to support them in their transition (National Health Service Employers 2017).

2.2.5 Current Challenges in the Ambulance Service

The following two sub-sections will present two of the main challenges to ambulance services and their workforce: ambulance service culture, and retention of staff and staff wellbeing.

2.2.5.1 Ambulance Service Culture

This thesis employs a social constructionist viewpoint which seeks to understand the social factors which may underpin the way in which individuals experience their world (Burr 2015). It is pertinent, therefore, that the introduction includes a section on the culture of ambulance services to understand the social context for participants in this study.

Earlier in this chapter, the military history of the paramedic profession within the USA was explored as a context for the UK paramedic profession. This is relevant because the culture of the UK ambulance service is often described as militarised (Devenish et al. 2016; McCann and Granter 2019). This is possibly a result of the development of the paramedic profession, and possibly a result of the need for clear command structures when managing time-critical scenes. This sort of command structure is a feature that is shared with other emergency services for the same reasons (McCann and Granter 2019). McCann and Granter (2019) highlight how this military influence appears in practice. There are clear lines of command, delineated by insignia on epaulettes such as ‘pips’ or ‘crowns’. These are seen as a way of exercising power and authority (National Guardian 2023). The language surrounding rank structures are also quite militarised such a ‘county commander’ and ‘station officer’. The communal room used for ambulance staff to take a break and relax is often referred to as the ‘mess room’. This militarised culture supports a heroic discourse where professionals emphasise sacrifice and duty (McCann and Granter 2019). This culture is further supported by the fact that traditionally members of the armed forces were attracted to ambulance work after their career in the military, further embedding this culture.

This militarised view of the culture of ambulance services is significant because the discourse is curious when considering that ambulance services are a part of the NHS. It is surprising when set against a backdrop of increasing professionalisation, autonomy and responsibility that there should be such a strong command structure. A more open and professional managerial structure may more befit the organisations’ aims as healthcare providers (McCann and Granter 2019). The Francis (2013) Report identified the needs for openness, transparency and candour at all levels of the NHS to avoid a repeat of the failings that occurred at Mid-Staffordshire hospitals. There is concern that the sort of militarised culture that is found in ambulance services has a tendency towards concealing wrongdoing and suppressing whistle-blowers (McCann and Granter 2019).

Many issues have been raised across ambulance services that indicate that there are problems inherent in the culture. Most recently the National Guardian’s Office raised concerns about the ability of ambulance staff to speak up about concerns (National Guardian 2023). The report pointed to embedded cultural problems that

were preventing ambulance workers from speaking up about concerns. The report highlights that the command-and-control decision-making meant that workers felt that if they did speak up about concerns that they would not be listened to, and that in some cases there were reprisals for those that did raise concerns. Reprisals included bullying, being subjected to counter-allegations, being called a snitch and being over-looked for promotions. On this issue the report recommended that a cultural review should look at whether the command-and-control style of leadership is the most appropriate expression of leadership for ambulance services. The report raised concerns that it is a barrier to speaking up.

There were also other concerning themes within the National Guardian report (National Guardian 2023). There were reports of sexual harassment which appeared to be well known amongst respondents. There were reports of respondents feeling like they were required to do sexual favours in order to progress in their career, and reports of a culture where men would ‘help themselves’ to students. Two female Chief Executive Officers of ambulance trusts identified that there is something ‘deeply wrong’ with the male-dominated ambulance service culture, identifying that they regularly accept sexualised behaviour from male colleagues (HSJ 2022). The National Guardian (2023) report identified that ambulance services did not always take appropriate action when this was reported and there was a tendency to see this as an accepted part of the culture.

The National Guardian (2023) report identified bullying and harassment to be widespread in ambulance services. A report commissioned by one ambulance service in England identified that one-third of staff had witnessed bullying in the workplace, and that this was predominantly by managers (Lewis 2018). This report also found that in some locations there were strong in-groups and out-groups, and that those identifying as non-heterosexual, those with health conditions and members of trade unions were statistically more likely to experience incivility and report feeling marginalised. The National Guardian (2023) found these same issues on a wider scale. It reports cliques and, in some cases, discrimination on the grounds of gender, gender identity, sexual orientation, disability and ethnicity. There was a feeling that the culture tolerates things that everyone knows is not right, but nobody wants to be the one to speak up about it for fear of appearing disloyal to the group.

Taken as a whole, the overall picture of the culture of ambulance services in the UK is that they can be challenging environments in which to work. For newly qualified paramedics entering the workforce it must be very difficult to navigate this culture, in addition to the usual anxiety around starting a new role. This provides a useful context for this thesis to help to understand the experiences of newly qualified paramedics as they transition into the ambulance service workforce.

Another of the current challenges facing ambulance services are the interlinked issues of retaining ambulance paramedics and paramedic wellbeing.

2.2.5.2 Retention of Staff and Staff Wellbeing

Retention of paramedics in the ambulance service has been an issue for a number of years (Association of Ambulance Chief Executives 2015; Egan 2017; Beldon and Garside 2022). It is estimated that less than 80% of UK paramedics work within the UK NHS ambulance service, where this number would've been much nearer to 100% ten years ago (Egan 2017). The reasons for this are multi-faceted. Some of the reasons cited for leaving the ambulance service are the emotional effects of the role, pay, working long hours, a lack of training opportunities, bullying and harassment in the workplace, amongst other things (Association of Ambulance Chief Executives 2015). It is likely that the cause of any one individual leaving the ambulance service is multi-factorial and each individual will have their own reasons for leaving. However, the factors highlighted above are some of the commonly cited reasons for such a poor retention rate within UK NHS ambulance services.

Issues around wellbeing have been highlighted as a cause of attrition from the ambulance service. Egan (2017) highlights how the hazardous work environment leads to paramedics having more sick days than many other professions. A freedom of information request revealed that in a one-year period 250,000 sick days were the result of mental ill health amongst ambulance workers in the UK. In one trust, 32% of staff had at least one sick day due to mental ill health over the one-year period (Future Care Capital 2023). A recent report by the Nuffield Trust (2023) shows that ambulance staff have the highest sickness rates out of any health profession group,

and that the leading cause of sickness is issues relating to poor wellbeing. This report covered a one-year period in 2022. It also compared findings to pre-pandemic 2019. In 2019 ambulance staff also had the highest sickness rates out of any health profession group, and the leading cause of this was issues relating to wellbeing. The group that has experienced the highest increase in sickness rate from 2019 to 2022 are ambulance staff. The charity Mind (2019) conducted surveys on emergency service workers (police, fire and ambulance) to understand the landscape in relation to mental wellbeing of emergency workers. They found that ambulance workers were least likely to rate their mental health as ‘good’ or ‘very good’ and 75.8% of ambulance workers had experienced personal mental health problems. These reports highlight that ambulance staff, including paramedics, experience poorer wellbeing than other healthcare professional groups and other emergency service groups. The reports do not indicate reasons for these trends, but this will be explored in the next chapter in a review of the literature. It is reasonable to conclude that poor mental wellbeing would be a factor in paramedics leaving the ambulance service. Indeed, Hayes (2022) draws this conclusion indicating that paramedics leave the ambulance service to protect their wellbeing and that this is facilitated by the range of opportunities now available to paramedics in non-traditional roles across the NHS.

Hayes (2022) also highlights how the culture and working conditions of the ambulance service are significant contributors to paramedic attrition from the ambulance service. The culture of the ambulance service has been highlighted earlier in this chapter and it is reasonable to conclude that paramedics who experience bullying, sexual harassment and incivility are more likely to leave the ambulance service for other roles within healthcare. This view is supported by Egan (2017) who points to these specific issues as a cause of attrition from the ambulance service.

Earlier, the chapter described the evolution of the paramedic profession. In particular the professionalisation of the profession, coupled with increasing autonomy, clinical acumen and level six education mean that paramedics are highly skilled professionals that are sought after in many areas of the NHS (Egan 2017). These opportunities for employment outside of the ambulance service, often coupled with better conditions, are very attractive to ambulance service paramedics and are no

doubt a significant cause of attrition from the ambulance service (Association of Ambulance Chief Executives 2015).

The REPAIR project (Health Education England 2018) identified that there was attrition amongst newly qualified healthcare professionals in the first two years of their employment. Whilst this report did not look specifically at paramedics, the problem appears to be occurring across the occupation spectrum in the National Health Service. Clinical confidence and the culture of the clinical setting were identified as significant factors that contributed to attrition of healthcare professionals in the first two years of their career. A report looking specifically at newly qualified paramedics' transition to practice identified similar issues, particularly around anxiety and clinical decision-making, and the link to attrition (Health Education England 2020). Although this report focussed on those cohorts who experienced disruption as a result of COVID-19, it demonstrates some of the issues that a newly qualified paramedic may face as they transition from student to practitioner.

2.3 Resilience

This study explores the experiences of newly qualified paramedics and considers their experiences in making the transition to professional practice. It seeks to understand the emotional impact of their journey on resilience during this process of transition and their personal resilience in coping with such change. The previous section has explored contextual issues within ambulance services and identified that paramedics often experience poor wellbeing and are vulnerable to developing mental health conditions. Resilience has been linked to better wellbeing and has been seen to be able to buffer against the development of mental ill health. This section will explore resilience in more depth as a basis for understanding the concept in the context of this study.

2.3.1 Resilience and Wellbeing

Resilience has often been studied in relation to wellbeing, general wellbeing, or wellness and as such has been described as the subjective feeling of contentment,

happiness, and satisfaction (Dhar et al. 2010). Individuals with higher resilience are more likely to be happy, and pursue a life that is fun and meaningful (Ryan and Deci 2001). They are also more likely to be hopeful, and display a range of positive emotions, which is linked to higher general wellbeing (Grover et al. 2019). Similarly, they are more likely to display an increased self-esteem and strong self-concept, which improves subjective feelings of wellbeing (Tugade et al. 2004) Again, although there is not a proven causal link between wellbeing and resilience, evidence highlights a positive correlation (Masten 2001; Ryan and Deci 2001; Tugade et al. 2004; Dhar et al. 2010; Mak et al. 2011; Grover et al. 2019).

2.3.2 Resilience and Mental Ill-Health

Resilience has been studied in relation to the development of mental ill health. Many studies, across many different populations, have identified that low resilience is linked to the development of mental health conditions (Siriwardhana and Stewart 2013; Ziaian et al. 2013) and that improving resilience mitigates the risk of developing a mental health condition (Siriwardhana and Stewart 2013). Indeed, some studies have found significant negative correlations between resilience and the development of mental health conditions (Roy et al. 2011; Peng et al. 2012). Although it is difficult to identify causality between resilience and mental health conditions, it is suggested that higher resilience buffers poor mental health through mediating factors such as personal protective factors, increased social support and increased confidence (Roy et al. 2011; Peng et al. 2012; Masten 2014; Shi et al. 2016).

In summary, although causal links are difficult to identify within literature, resilience is positively associated with wellbeing and negatively associated with mental health conditions. Therefore, high resilience appears desirable to avoid mental ill health and to improve wellbeing (Gao et al. 2017).

2.3.3 Defining Resilience

Resilience is a term that is used in many contexts and its' meaning has become increasingly nebulous in common usage (van Breda 2018). On reading the literature,

it often seems that there is a lack of a unified definition of resilience. This lack of consensus has resulted in heterogeneity within the literature resulting in variances in the study of the various facets of resilience. This variation could be attributed to the fact that resilience has been studied from a variety of historical, social and cultural contexts (Fletcher and Sarkar 2013), and that the research conducted into resilience has conceptually developed and changed since its inception.

To understand the difficulty faced when trying to unify definitions of resilience, it is useful to consider how knowledge and research has developed. Resilience was originally conceptualised from the field of developmental psychology, studying 'at risk' groups of children and adolescents (Windle 2011). The focus of these first studies was on identifying risk factors that made children vulnerable to adverse outcomes. In identifying that some children had positive outcomes despite significant risk factors, research sought to pinpoint the common traits that children possessed who thrived in the face of such adversity, focussing predominantly on personal qualities (Richardson 2002). Later research acknowledged that there were wider societal and cultural issues that may affect resilience, in addition to personal qualities (Richardson 2002). Much of the literature related to conceptualising and defining resilience is still from the field of developmental psychology.

A unified definition of resilience is useful so that there is a common framework from which researchers can understand the concept across populations and can write about it in harmony (van Breda 2018). It is also important within populations, such as paramedics, so that a body of research can be built, researchers can be sure that there is a common conceptual understanding of the phenomenon being studied, and interventions developed on the basis of the research are conceptually sound (Gao et al. 2017). Nevertheless, resilience continues to be defined and conceptualised in different ways.

Many definitions of resilience have been presented which reflect the changing conceptual understanding of resilience. Rutter (1987) page 316 defines resilience as "protective factors which modify, ameliorate or alter a person's response to some environmental hazard that predisposes to a maladaptive outcome". This definition emphasises protective factors against adversity. Similarly, Connor and Davidson

(2003) define resilience as “The personal qualities that enables one to thrive in the face of adversity”. This definition emphasises personal qualities such as personality traits and emotional reactions to stressors. Both of these authors also acknowledge the importance of stress and coping, suggesting that resilience is the result of a successful stress-coping process (Connor and Davidson 2003; Rutter 1987) and display an interest in the development of protective processes. Luthar and Cicchetti (2000) acknowledge this dynamic process in their definition: “a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma.” Taking definitions of resilience as a whole, there is disagreement about whether resilience refers to personal factors, protective factors, a process of adaptation, or whether the outcome of successful adaptation defines resilience (Fletcher and Sarkar 2013). Therefore, there are conceptual issues which need to be explored before applying the notion of resilience to newly qualified paramedics in this study, so that the meaning of resilience is clear throughout this thesis.

2.3.4. Resilience Themes

The research can be grouped into five themes based upon researchers’ definitions of resilience. Each of the facets of resilience mentioned above will be explored: Resilience as a buffer, resilience as adaptation, resilience and personality, resilience and emotional responses and resilience as a process. Each concept will be explained alongside difficulties with them being defining characteristics of resilience. Instead, a model of resilience will eventually be described which incorporates the many different facets of resilience mentioned in the literature.

2.3.4.1. Resilience as a Buffer

Protective factors have been described as factors that protect, buffer or shield against the negative effects of significant stressors (Fletcher and Sarkar 2013). These protective factors formed part of the early research into why people experienced the same stressors but had different outcomes (Rutter 1987). Early research called these people ‘invulnerable’ to the adverse effects of adversity(Rutter

1987). Many factors have since been highlighted that make it less likely for an individual to experience the significant disruption to their wellbeing in the face of similar stressors, such as spirituality (Bogar and Hulse-Killacky 2006), extraversion (Campbell-Sills et al. 2006), positive emotions (Tugade and Fredrickson 2004), and self-efficacy (Gu and Day 2007), and these could be considered protective factors. Whilst the presence of these factors is an important part of a person's defence against adversity, it is problematic to define resilience solely on the basis of protective factors. It does not take into account the dynamic nature of resilience, instead inferring that individuals are either resilient or not resilient (Fletcher and Sarkar 2013). Additionally, it does not acknowledge how an individual may manage adversity to experience growth as a result of the resilience process (Luthar and Cicchetti 2000).

2.3.4.2. Resilience as Adaptation

The outcome of positive adaptation is the defining characteristic of resilience for some researchers. For Luthar and Cicchetti (2000) it is the positive adaptation in the face of significant adversity that defines resilience. Similarly, for Masten (2014) it is a dynamic ability to adapt successfully to disturbances that threaten function. There is inherent ambiguity in understanding the nature of adaptation. It has been described as bouncing-back, coping and recovering from the effects of adversity (Masten 2014). Indeed, Bonanno (2004) points to the maintenance of healthy functioning following adversity as the hallmark outcome of resilience. These ideas of adaptation speak to a recovery back to the place the individual was before the adversity. It has also been described more as thriving in the face of adversity (Connor and Davidson 2003) which appears to reflect the notion of positive growth from experiencing adversity. That is, an individual is better placed than before to deal with stressors having experienced this adversity (Masten 2014).

A problem with studying adaptation as the essence of resilience is that the notion of desirable adaptation is heavily value-laden and culturally contextual (Masten 2014). There may be different measures of who is 'doing well' in the face of adversity depending on context. Ungar et al (2013) highlight the cultural contexts of adaptation, showing how different cultures value different expressions of adaptation.

Another issue with focussing on adaptation as resilience is that is does not explicitly consider the other factors within the process of adaptation, such as the nature of the adversity and protective factors.

2.3.4.3. Resilience and Personality

Research has sought to understand the extent to which personality traits mediate resilience, as a basis for understanding if there are fixed traits that account for differences in peoples' resilience. Personality traits are described as relatively enduring thoughts, feeling and behaviours that differentiate people from one another (John and Pervin 2008). The most commonly used model to understand personality traits is the big-five (Pytlik Zillig et al. 2002; John and Pervin 2008). The big-five personality traits are extraversion, agreeable, openness, conscientiousness, and neuroticism (Pytlik Zillig et al. 2002). People appear on a scale from low to high for each trait which makes up their personality. It is developed during childhood, adolescence, and early adulthood, remaining mostly stable after 30 years old with only small changes in personality traits over time thereafter (Rantanen et al. 2007; Cobb-Clark and Schurer 2012). Personality traits are developed through interactions with the environment during childhood and adolescence so cannot be thought of as purely genetic factors, although there are genetic elements to its' development (John and Pervin 2008).

Research into the links between the big-five personality traits and resilience has consistently found correlations. A meta-analysis seeking to explore this relationship found that neuroticism was significantly negatively correlated with resilience (Oshio et al. 2018). This is perhaps not surprising given that the main feature of neuroticism is an elevated reactivity to stress which results in frequent negative emotions (Barlow et al. 2014). The other four traits were positively correlated with resilience (Oshio et al. 2018). Other studies have found that the same four personality traits (agreeableness, contentiousness, extraversion, and openness) were positively correlated with resilience (Gholipour et al. 2016; Balgiu 2017; Khosbayar et al. 2022).

Many authors argue that it is too simplistic to attribute resilience to a personality trait. Personality traits are fairly stable over time in adulthood, but levels of resilience vary over time and between different stressors (Fergus and Zimmerman 2005; Southwick et al. 2014). People have different levels of resilience based on different stressors (Southwick et al. 2014). The development of personality traits, although partly genetic, is largely a result of a person's interaction with their environment (Rutter 2013) which highlights social, cultural and behavioural factors which are modifiable and may be more significant mediators of resilience than personality (Kuldas and Foody 2022).

2.3.4.4. Resilience and Emotional Responses

Another personal factor which appears to mediate resilience is the individual's emotional responses. Research has acknowledged a link between positive emotions and high resilience, although it is difficult to infer causality (Luthar et al. 2014). Kindness, gratitude and hope have been identified as positive outlooks that act as protective factors against adversity (Fletcher and Sarkar 2013). Another study found that hope, bravery and zest were most significantly correlated with higher resilience (Martínez-Martí and Ruch 2017). Seligman's (1998) 3 P's model highlights how positive psychology can be used to improve emotional responses to stress. Personalisation: the ability not to internalise problems and not putting unnecessary blames on oneself. Pervasiveness: the ability not to let one problem invade all areas of one's life. Permanence: the ability to realise that problems are transient and will not last forever. These emotional outlooks are not fixed in the same way that personality traits are, therefore reinforcing that resilience is modifiable and changeable over time (Luthar et al. 2014).

Personal factors appear to be important aspects of resilience, but, again, it is problematic to view resilience as just "personal qualities that enable individuals' to thrive" (Connor and Davidson 2003). This is because it does not take into account the context of the individual at different points in their lives (Fletcher and Sarkar 2013), and it does not acknowledge social and cultural influences (Bonanno 2004). If a person's circumstances change, their resilience alters (Rutter 1981). This is demonstrated by the fact that a person may respond differently to different stressors,

and respond differently to the same stressors at different times (Fletcher and Sarkar 2013).

2.3.4.5. Resilience as a Process

Resilience has been identified as a complicated construct (Southwick et al. 2014). Indeed, some researchers indicate that the concept of resilience changes over time (Southwick et al. 2014) and between cultures (Bonanno 2004) that perhaps makes a unified definition unrealistic. However, many researchers identify resilience as a process (Luthar and Cicchetti 2000) that incorporates different facets such as personal, social, cognitive and cultural factors (Luthar and Cicchetti 2000; Bonanno 2004; Masten and Tellegen 2012). A seminal longitudinal study highlighted the complexity of resilience and the many different facets that it incorporates, such as those factors mentioned above (Masten and Tellegen 2012). It incorporates different adaptations to adversity as a result of a resilience process, and suggests "ingredients" to build a model of resilience: adversity, protective factors, coping behaviours and outcomes/adaptation (Masten and Tellegen 2012). Conceptualising resilience as a model, rather than a unifying definition, emphasises the importance of the process and can unify understanding of resilience by incorporating many facets, that have been discussed in this section, under one construct (Connor and Davidson 2003).

One such model is Richardson's model of resilience. It helps to explain how adversity, protective factors, personal factors and other coping strategies combine to produce an outcome or adaptation as a result of the process.

2.3.5 Richardson's Resilience Model (2002)

Richardson (2002) presents a model of resilience which, at its core, assumes a state of biopsychospiritual homeostasis (figure 2).

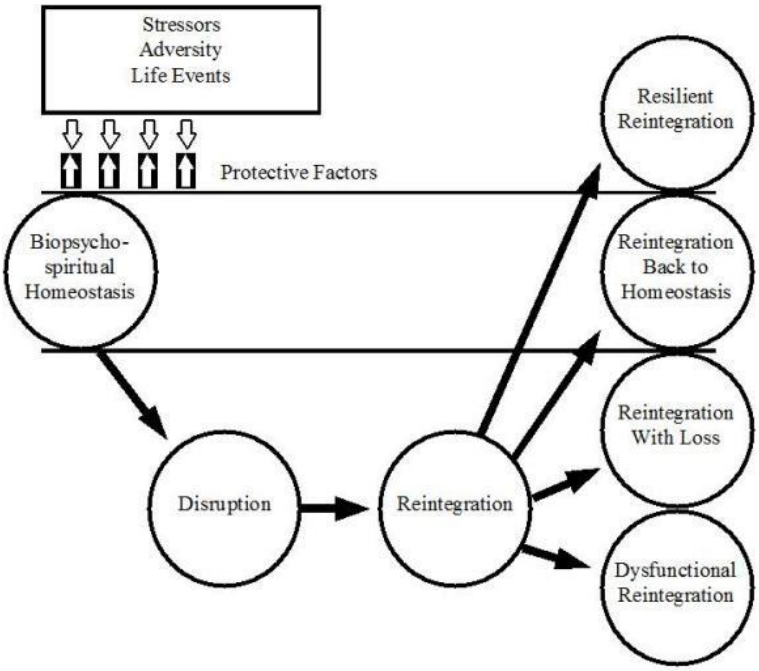


Figure 2 Richardson's (2002) model of resilience, p.311.

This is a state of wholeness, colloquially called the ‘comfort zone’, which allows a person to operate well and maintain their wellbeing. At times, a person’s biopsychospiritual homeostasis, their wellbeing, may be disrupted because of adversity. That is, they feel the negative effects of a stressor. The ability of adversity to cause these negative effects, and the scale to which it causes disruption, depends on the interplay between the level of adversity and the presence of protective factors. Much of the literature that has guided the notion of resilience and what it means to be resilient has been based upon studies looking at rare, major life stressors (Davis et al. 2009). However, Davis et al. (2009) indicates that, for most individuals, the stressors that cause disruption are much more modest, everyday stressors. This view is supported by Davydov et al. (2010) who acknowledges different levels of stressors from mild adversity to strong adversity. The types of stressors will be important in chapter three when considering stressors that paramedics may face.

Once disruption to biopsychospiritual homeostasis has occurred, Richardson (2002) suggests that reintegration, which can be thought of as adaptation, occurs in one of four ways. If this is done effectively, through the use of positive coping strategies for example, then the individual undergoes resilient reintegration. That is, they reintegrate with a greater level of insight and resilient growth, now having more

protective factors against adversity than before. This is the positive adaptation, or thriving, that commonly features in definitions of resilience (Fletcher and Sarkar 2013).

Another outcome is that an individual may reintegrate back to homeostasis so that they can function as before but will not be more resilient than before. This could be considered akin to bouncing back or coping, but without thriving.

A third outcome, reintegration with loss, occurs when there is partial recovery, and individuals may be able to function virtually as before, but with some kind of loss. Loss could refer to a loss of motivation, hope, drive, often as a way of coping with the stressor.

The seemingly least desirable outcome of this resilience model is dysfunctional reintegration, which refers to dysfunctional behaviours that are used to cope with stressors, for example substance misuse or risky behaviour. The model postulates that resilience is built throughout life by a constant process of disruption and resilient reintegration. Reintegrating with loss and dysfunctional reintegrating are examples of lower resilience which has been linked to poor wellbeing earlier in this section.

The resilience model encompasses the notion that resilience is multi-dimensional and not fixed, but that it varies within an individual across different circumstances (Connor and Davidson 2003). It incorporates the facets of resilience discussed earlier in this section: protective factors, personal factors, the process of resilience and outcomes/adaptations, and unifies them under one model. This model, and the implications it has for the development and measurement of resilience, was used as a theoretical basis for the development of the Connor-Davidson Resilience Scale (CD-RISC) questionnaire, which is used as a self-rated assessment to help quantify resilience (Connor and Davidson 2003). The CD-RISC questionnaire was used as a method for collecting quantitative data from newly qualified paramedics in this study, and therefore this model of resilience underpins the notion of resilience in this study. This model of resilience is a useful conceptualisation of resilience because it acknowledges the influence of stressors in disrupting individuals, the employment of coping strategies to try to recover from this insult, and the fact that there are a variety

of outcomes of trying to negotiate stressors. It also emphasises the modifiable and fluctuating nature of resilience over time which is an important consideration in designing this study.

2.3.6 Potential Downsides of Resilience

There is literature exploring the downsides to resilience as a concept. Within the workplace Erskine and Georgiou (2023) identify how employee resilience programmes may be problematic for employees. They highlight that resilience programmes but the emphasis on individual resilience where actually there may be a pathogenic workplace culture in which the individual is trying to operate. Resilience programmes only serve to blame the individual for their difficulties and discourage them to identify organisational issues that warrant changing to improve conditions (Erskine and Georgiou 2023). This has been found in the healthcare field when looking at resilience training for physicians. Card (2018) found that resilience programmes blamed physicians for experiencing stress and burnout, when in fact there were organisational and system issues that led to avoidable suffering. Card (2018) concludes that involving physicians in the design of organisational systems would be more effective in mitigating against stress and burnout than personal resilience programmes.

There is a pyrrhic aspect to promoting resilience amongst employees (Erskine and Georgiou 2023). If employees are operating in a pathogenic workplace environment, then resilience programmes may help them to cope with this. There is a danger that employers will then place a larger workload on more resilient employees which creates a new vulnerability for individuals, placing them at higher risk of poor wellbeing (Mahdiani and Ungar 2021). It also prevents individuals from taking action to prevent risks within the organisational system, enabling employers to shift blame and responsibility to individuals (Erskine and Georgiou 2023, Mahdiani and Ungar 2021).

2.3.7 Summary

Resilience is difficult to define for a variety of reasons, and has been defined variably as protective factors, personal factors, an outcome of adaptation, and a process. The resilience model presented provides a useful conceptualisation of resilience and a framework from which resilience can be studied which unifies these concepts under one model. Resilience is a process which is unique to each individual, it fluctuates over time, and it can lead to a number of different outcomes or adaptations.

2.4 Personal Reflection on the Chapter

From a historical perspective I feel that the culture of the UK NHS ambulance service is still heavily influenced by the ambulance service of 40 or 50 years ago. On reflection of my experiences working as a paramedic in the ambulance service I can see how these historical and cultural factors were so prominent in influencing my wellbeing. The work that has been presented that looks at the militarised culture of the ambulance service, as well as the national guardian's report into ambulance culture, were aspects of the culture that I very much recognised. Seeing research and reports that have identified these issues that I tangibly felt when working in the ambulance service helps me to understand the uneasiness I perhaps always felt whilst working as a paramedic in the ambulance service. It also reinforces to me the importance of helping those newly qualified paramedics that are entering this culture, and the first step to doing this is to understand their experiences as they transition into the workforce.

2.5 Summary

This chapter has explored the context of the ambulance service in the UK. It traced the historical evolution of ambulance services and the changing educational requirements for paramedics in order to meet the diverse demands on ambulance services. The culture of ambulance services was explored and understood in relation

to the historical evolution of the profession. This was considered alongside the interlinked issues of attrition and wellbeing in ambulance services and the need to address culture, retention and wellbeing of staff. Resilience literature was explored to develop a conceptual understanding that will underpin the study of resilience in this thesis. Resilience is a process which is unique to each individual, it fluctuates over time, and it can lead to a number of different outcomes or adaptations. For these reasons, resilience is difficult to define for a variety of reasons, and has been defined variably as protective factors, personal factors, an outcome of adaptation, and a process. Richardson's resilience model presents a useful conceptualisation of resilience and a framework from which resilience can be studied which unifies these concepts under one model and is the conceptual framework used in this study.

The next chapter conducts two literature reviews on topics that have been informed by the current chapter. Firstly, resilience is considered in the context of paramedics and ambulance services. Secondly, acknowledging the cultural emphasis of the current chapter, socialisation literature is explored to understand what is known about the experiences of newly qualified paramedics as they transition into the workforce. These literature reviews inform the research aim and objectives which are presented in chapter four.

CHAPTER 3: Review of Literature

3.1 SECTION 1: Resilience in the context of Paramedics

3.1.1 Introduction

This section conducts a structured review of the literature in relation to resilience in the context of paramedics. Chapter two identifies how resilience is conceptualised in this study, using Richardson's (2002) resilience model. It explains how adversity, protective factors, personal factors, and coping combine to produce an outcome in a process of resilience. Resilience is an important concept within this thesis and is used to help to construct the experiences of participants, to understand their turbulent experiences over time and in relation to other participants. More information about the use of resilience in analysis can be found in chapter four.

This literature review explains the importance of studying resilience amongst paramedics by highlighting the issues that paramedics currently face in doing their work. Themes are presented which splits the literature into stressors and coping/protective factors which helps to understand resilience in this context. The section finishes by highlighting that different facets of resilience in paramedics have been explored, but that resilience has not been explored in relation to newly qualified paramedics.

This chapter presents two literature reviews focussing on resilience in paramedics and socialisation of newly qualified paramedics. The findings from the two literature reviews are used to help identify a gap in the literature around understanding newly qualified paramedics' experiences to support resilience and wellbeing.

3.1.2 Background

There has been a recent increase in interest surrounding resilience in ambulance services (Association of Ambulance Chief Executives 2018; MIND 2019; College of

Paramedics 2023). There has been a focus on increasing the provision of wellbeing services within ambulance services (Association of Ambulance Chief Executives 2018), the College of Paramedics (2023) has made the wellbeing of paramedics a strategic priority, and charities such as Mind (2019) and The Ambulance Service Charity (2023) have implemented programmes of support specifically for ambulance service workers. Much of the international literature has looked at the risk and incidence of mental illness such as post-traumatic stress disorder and major depression (Iranmanesh et al. 2013; Fjeldheim et al. 2014; Boyle and McKenna 2017; Gramlich and Neer 2018). This is particularly the case where literature has looked at the impact of traumatic incidents on the clinician, such as workplace violence, major road accidents, major incidents and death. As discussed in chapter two, attending to life-threatening and traumatic events may intuitively seem like the most important and significant stressors to the paramedic. However, the change in workload, professionalisation and diversification of the profession and the changing operational system means a detailed look at the stressors that an ambulance paramedic may face is pertinent.

3.1.3 Resilience and the NHS ambulance service

The resilience of paramedics is of particular importance within the current National Health Service (NHS) context because 30% of absenteeism is due to stress, and ambulance staff report higher levels of stress that any other healthcare professional group (Health and Social Care Information Centre 2014). Mind (2016) report that 91% of ambulance staff have experienced stress and poor mental health at work, and that ambulance staff are twice as likely to cite occupational stressors as the main cause of mental health problems, as compared to the general population. This is concerning when set against a backdrop of high levels of attrition from the NHS ambulance service and a national shortage of paramedics as reported in chapter two. The reason for high attrition is sure to be multi-factorial, however high occupational stress levels may play a large part in this.

Paramedics have been found to have a high incidence of post-traumatic stress disorder, compared to the general population, of 15 – 22% (Bennett et al. 2005). This

is perhaps to be expected given that the majority of paramedics will experience a traumatic event in the course of their work (Minnie et al. 2015). In addition to this, paramedics have also seemed to suffer higher levels of anxiety, sleep disturbance, substance misuse and suicide when compared to the general population (Smith and Roberts 2003; Beaton 2006; Wieclaw et al. 2006).

There is much literature looking at the development of mental health conditions amongst paramedics, However, there are a variety of daily stressors that they face that may be insidious in affecting resilience. Exposure to traumatic incidents is undoubtedly one of the stressors that paramedics face but, although this is perhaps the most obvious stressor, there is a paucity of evidence seeking to explore the wide range of stressors that paramedics are exposed to. Furthermore, little is known about the types of stressors that most affect paramedics' ability to cope with their work, beyond the more major and obvious stressors.

Therefore, a literature review was undertaken to understand the range of stressors to which paramedics are exposed and the factors that are important to paramedics in negotiating those stressors. In chapter two, attention is given to the outcome, or adaptation, that occurs as a result of the interplay between stressors, protective factors and coping strategies. This literature review seeks to understand the effects of this process on paramedics. Therefore, the aim of this review is to understand what factors affect resilience in National Health Service (NHS) United Kingdom (UK) ambulance service paramedics.

3.1.4 Literature Review Methodology

The steps taken to produce the literature review follow the principles of an integrative review, as set out by de Souza et al. (2010). This framework was chosen to guide the production of the literature review because it facilitates the inclusion of experimental and non-experimental (including qualitative) designs, and for comparison to theoretical frameworks. It was anticipated that the literature search would yield both qualitative and quantitative designs and this framework guided the analysis and synthesis of different designs. The steps followed to produce this review were de Souza et al. (de Souza et al. 2010):

1. Preparing the guiding question
2. Searching the literature
3. Data collection
4. Critical analysis of the studies
5. Discussion of results

3.1.5 Preparing the Guiding Question

The purpose of this literature review was to answer the question: what factors affect resilience amongst NHS paramedics in the UK? It sought to understand what is known on the topic, to synthesise the evidence to inform the research aims of this study. The background section highlights how the research into resilience in paramedics in the UK is disparate and there are a wide range of focuses amongst papers. Therefore, this review attempted to synthesise evidence to harness a better understanding of the literature, and to identify where the gaps are in current understanding. To answer the question search terms were devised based on the key terms: paramedic and resilience. The search was left deliberately broad to capture a full understanding of the different factors that are reported to affect paramedic resilience in the UK. The justification for focussing on UK paramedics can be found in the following section.

3.1.6 Searching the Literature

The database EBSCOHost was searched using the key terms in table 1. The following databases were selected to search because they were relevant to the field of study: Academic Search Ultimate, APA Psyc, CINAHL Complete, Communication Source, MEDLINE Complete, PsychINFO and Science Direct. Additionally, the database Web of Science was searched using the same search terms. The Boolean operators ‘and’ and ‘or’ were used to systematically search the database. Truncations (*) were used to search for variations of words. For example, ‘coping’ was searched for by using the truncation ‘cop*’ so that the database searched for the

variations ‘coping’, ‘cope’, ‘coped’. This use of key terms rather than subject headings helped in constructing a broad search.

Table 1 Search Terms

Key Term	**Search Terms**
Paramedic	Paramedic*, “Ambulance Service”, “Ambulance Staff”, “Ambulance Work*”, “Emergency Medical Services”, EMS
Resilience	Resilien*, Cop*, Thrive, “Bounce Back”, Bounce-back, Adapt*, Wellbeing, Well-being, Wellness, Stress*, “Mental Health”, “Mental Illness”, “Psychological health”

Limiters were applied to the database search. English language was selected because there was no resource available to reliably translate papers from another language. Academic journals and peer-reviewed articles were selected, as these articles have been peer-reviewed by experts which helps to increase the quality of research accessed for the review. Also, this review is interested in primary research and these limiters help to select for this. Geography was limited to the United Kingdom (UK). This is because this thesis emphasises the cultural, social and historical context of the ambulance service. Although there are some countries where the health service and ambulance service are similar, the cultural context was considered so important in the experiences of paramedics. The date was limited to 2005 or later. This was because the Bradley report (Department of Health 2005) was released in 2005 and this fundamentally changed the way that ambulance services were designed and operated in the UK, and therefore changed the context for paramedics significantly. This is described in chapter two.

Inclusion and exclusion criteria were developed to aid with the screening of results, see table 2. Student paramedics were included in the inclusion criteria because this

thesis is interested in the transition from student to newly qualified paramedic, so the experiences of student paramedics is seen as important in their development.

The review sought papers of qualitative, quantitative and mixed-methods design to give as full a picture as possible about the factors affecting resilience in UK paramedics.

Table 2 Inclusion and exclusion criteria

Inclusion Criteria	**Exclusion Criteria**
Focus on UK ambulance staff or student paramedics Gives insight into resilience Published in or after 2005 Original research	Not frontline ambulance workers or student paramedics Secondary research, including literature reviews Dissertations and unpublished work

References of relevant papers were searched to identify any further relevant papers that had not been found during database searching. Two papers were identified this way.

The search was carried out numerous times throughout the timespan of this project, with the search terms being amended in an inductive way as more research was accessed. Table 1 show the final search terms.

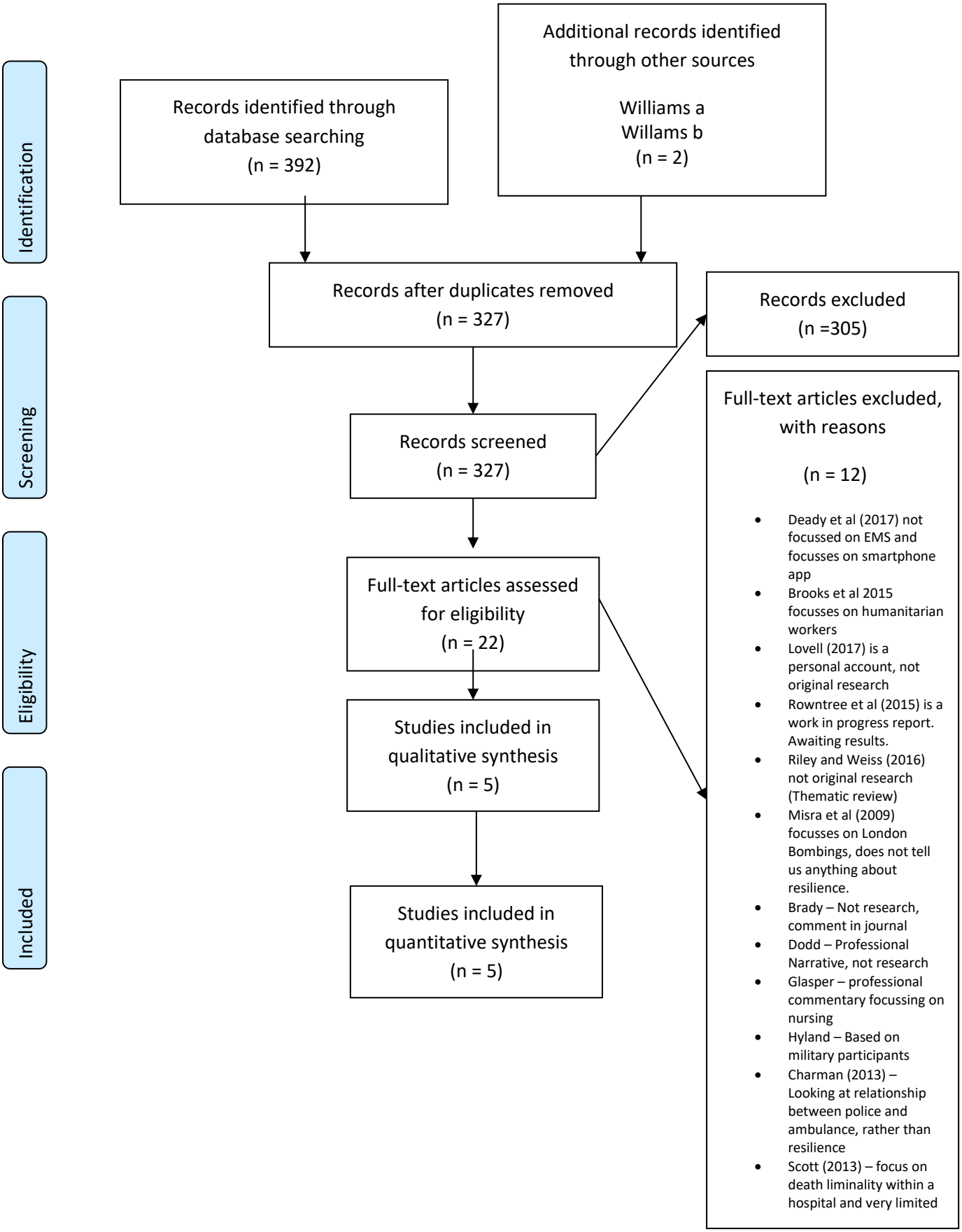
Once the search was conducted the results were read by title and, if necessary, abstract to ascertain whether they met the inclusion criteria. Those that did meet the inclusion criteria were then read in full and compared to the inclusion and exclusion criteria. Those that met all of the inclusion criteria and none of the exclusion criteria were included in the review. Those that met any exclusion criteria were excluded and those papers can be seen in the PRISMA flow diagram (figure 3) with a reason for the exclusion of each paper. This diagram represents the final search that was conducted.

The search strategy returned ten papers once the whole of the search strategy had been applied (See figure 3). There was a mixture of qualitative (n=4), quantitative (n=5) and mixed methods (n=1) designs.

3.1.7 Data Collection

The search yielded a mixture of qualitative, quantitative, and mixed-method papers. Analysis started by inputting the papers into a data extraction table to afford ease of comparison between papers (Appendix one). The use of the data extraction table helps to reduce errors and improve precision in analysis (de Souza et al. 2010).

Figure 3 PRISMA flow diagram



3.1.8 Critical Analysis of the Studies

Papers that were to be included in the synthesis for the review were then critically appraised to assess their quality. There was a mixture of qualitative and quantitative papers in the review so the Critical Appraisal Skills Programme (CASP) (2023) checklists were used, with the relevant checklist used for the corresponding study design. Papers were then rated for quality as high, medium or low quality. Eight papers were deemed to be of high quality and two of medium quality when critically appraised, therefore no papers were excluded on the basis of quality. The data extraction table can be seen in appendix one which shows a summary of the papers and the critical appraisal rating.

3.1.9 Discussion of Results

De Souza et al. (2010) identifies the steps that can be used to analyse and synthesise findings from the review papers. Following inputting the papers into the data extraction table, the table was scrutinised for patterns and differences between studies. This facilitated visualisation of how the papers linked to one another and themes began to be developed. Quantitative data supported the qualitative literature well and offered different insights into similar themes. The review papers are summarised below before discussion of the themes.

3.1.10 Summary of papers

Williams (2013a) used a cohort of eight undergraduate student paramedics to look at aspects of emotion work that the students identified as difficult to deal with. A further study then used the same cohort to identify strategies that students used to cope with the issue of emotion work (Williams 2013b). Both studies used the same purposive sample of paramedic science students at a large UK university. Although the sample is based on a student cohort, students are being immersed in the same environment as paramedics during practice placement, and being exposed to many of the same stressors. However, it may be that some organisational stressors that affect paramedics will not affect students in the same way. Nevertheless, these two

studies provide a useful insight into the experiences of pre-hospital care practitioners in relation to emotion-work and the effect of patient-facing activities on resilience.

Clompus and Albarran (2016) undertook in-depth biographical interviews followed by semi-structured follow-up interviews of seven ambulance workers. The focus of the study was to explore the nature of resilience from a psycho-social perspective. This means that the study was interested in internal and external factors which may affect resilience in ambulance workers. Four main themes emerged from this study which gave an insight into stressors that paramedics face and the strategies they use to cope. The nature of the study, using biographical interviews and semi-structured interviews, meant that there was a lot of qualitative data gleaned from the participants which gave a depth and richness to the study. The author reports that she hoped to induct more ambulance workers into the study but, although she was unable to, data saturation was achieved from the study participants.

Scott (2007) looked at the use of humour by nurses, paramedics and traffic police officers when dealing with sudden death. She used nine focus groups, although the make-up of the focus groups is unclear. Furthermore, the themes identified group the three professions together and do not give an insight into any differences there may be between the three professional groups. The study identified seven main types of humour, and points particularly to the use of black humour when dealing with sudden death. There are some direct quotes from paramedic participants in the study and this has helped to anchor the views of paramedics in the study with the themes that emerged.

Although the focus of the papers was slightly different, common themes emerged from the interviews and focus groups making it clear that there is a commonality in how paramedics try to cope with stressors. There were five quantitative papers that were identified which supplemented many of the themes identified in the qualitative papers, giving a different view of some of the stressors, protective factors and coping strategies.

Two of the quantitative papers focussed on antecedents and incidence of severe mental health problems such as Post-Traumatic Stress Disorder (PTSD) and major depression (Bennett et al. 2005; Wild et al. 2016). Both studies supplement the themes from the qualitative papers, identifying some of the positive and negative

outcomes of using certain coping strategies, and demonstrating how they relate to wellbeing and mental health.

Shepherd and Wild (2014) carried out a pilot study looking specifically at the effect of cognitive appraisal and objectivity on how 45 ambulance workers felt they coped with callouts. They used an unpublished questionnaire, finding that using more positive appraisal, less negative appraisal and remaining emotionally objective when treating a patient was associated with better perceived coping amongst paramedics.

Johnson et al.(2005) compared 26 occupations that are high risk for stress and looked specifically at physical health, wellbeing and job satisfaction. This study is of interest because it includes ambulance workers who scored poorly on all domains and draws links to some of the themes identified through the qualitative papers.

Hutchinson et al. (2021) studies the impact of lifestyle on a sample of 160 ambulance workers. They found that sleep was the single most important lifestyle factor in the development of mental health problems. This was the only UK study to look at the impact of lifestyle on mental health and wellbeing of ambulance workers, so will be presented alongside wider international literature to contextualise it.

Beldon and Garside (2022) used a two-phase design where they collected quantitative and qualitative data to explore the presence and contributory factors in the development of burnout on a sample of 382 paramedics. Quantitative data focused on the link between demographics and burnout, whereas qualitative data gave a more detailed and nuanced view of the development of burnout, and it is the qualitative data that seemed to yield the most important information.

3.1.11 Discussion

The themes within the papers were synthesised into two broad categories that are facets of resilience discussed in chapter two: Stressors and coping mechanisms/protective factors. Although a definition of resilience remains elusive, there is an interplay between the central concepts of stressors, coping strategies and protective factors that can illuminate issues faced by paramedics around resilience, and this is reflected in the literature that has been accessed.

Therefore, this review firstly explores the literature to understand what stressors paramedics may face. It groups stressors into the following themes: emotional labour, burnout, psychological trauma and organisational stress. It then explores the coping mechanisms and protective factors that are found in the paramedic literature. These are grouped into the following themes: humour, informal support, life outside of being a paramedic, and suppression, dissociation and dehumanisation. Where appropriate the themes generated by the papers in this search are compared to wider literature to help to understand theoretical concepts, and to explore if there is a shared experience amongst paramedics in other countries or professions. This could help to understand some of the themes more fully and to help in seeking solutions.

3.1.11.1 Stressors

3.1.11.1.1 Emotional Labour

Papers in this review looking at UK paramedics showed emotional labour to be a cause of stress for paramedics. Emotional labour describes the need for healthcare professionals to display certain emotions in order to care for their patients and make them feel cared for (Hochschild 2003). Johnson et al.(2005) studied 26 occupations in the UK which are high risk for stress, according to a nationally agreed standard scoring system. This included ambulance workers. They measured three dimensions in relation to stress which were: Physical health, psychological wellbeing and job satisfaction. In finding that ambulance workers had the poorest physical health, the fourth poorest psychological wellbeing and the second least job satisfaction, the authors suggested that a commonality of all the poorest scoring professions was emotional labour. Although they suggest that there are sure to be other factors involved, emotional labour was correlated with high stress. Williams (2013a) looked at a small purposive sample of undergraduate paramedic students at a large UK university with relation to emotion work. In support of Johnson et al.'s (2005) hypothesis that emotion work was a cause of stress for ambulance workers, she found that paramedic students did struggle with their emotions and identified that they felt they needed to 'get on with the job' rather than display emotion. Paramedics

particularly struggled with this where the patient reminded them of one of their own family members, causing an increased connection and empathy with the patient (Williams 2013a; Clompus and Albarran 2016), and increasing the potential for emotional dissonance. They reported using three main techniques to attempt to cope with this: suppression of their emotion, putting pressure on themselves that they 'have to deal with it' and by dehumanising the patient (Williams 2013a). It is interesting to consider Hochschild's theory surrounding emotional labour, that emotion work is carried out against a backdrop of certain expectations, or 'rules of the game', which she called 'display rules' (Morris and Feldman 1996). These display rules may point towards a culture within the profession and the organisation which expects that paramedics supress their emotion and 'get on with the job' in whatever way they can, perhaps creating emotional dissonance. Emotional dissonance occurs where there is a difference between what the professional truly feels and the emotions that they are expected to outwardly display (Badolamenti et al. 2017). Anderson (2019) emphasises the masculine culture within the ambulance service which expects that paramedics do not show emotion. Riley and Weiss (2016) suggest that this is part of the socialisation process for paramedics, in which they are encouraged to follow this emotional suppression through adherence to the masculine culture. Emotional labour, in particular emotional dissonance, has been shown to be correlated with an increased chance of developing burnout in nurses (Badolamenti et al. 2017) but has not been well explored in relation to paramedics. Although emotion work is a stressor that paramedics, as a caring profession, face on a daily basis, it is perhaps the context and the culture within which the paramedic operates that compounds issues of emotional labour.

3.1.11.1.2 Burnout

Burnout was first coined by Freudenberger, who noted that those people working in caring professions would often sacrifice themselves for others (Freudenberger 1974), and this has been found in the literature relating to paramedics. He noted how caring professionals may experience symptoms of burnout as a result of the emotionally demanding and high stress work (Freudenberger 1974). There is some

disagreement about the definition of burnout, but a popular and commonly used definition is one that Maslach proposes. She agrees that burnout is the result of prolonged emotional stress and that it displays three dimensions: emotional exhaustion, cynicism and a sense of inefficacy (Maslach 2003). Maslach emphasises the social and interpersonal causes of burnout by highlighting that burnout occurs in response to a person's interaction with their environment (Maslach 2003). A study in this review conducted on a sample of ambulance paramedics in the United Kingdom gives a more specific insight into burnout amongst UK ambulance paramedics. It showed that over 50% of the sample displayed medium or high levels of burnout (Beldon and Garside 2022). There were particularly high levels of depersonalisation (including cynicism, detachment and reduced empathy) with nearly 90% of the sample displaying these features. Although this dimension of burnout was highly prevalent in the sample, there were high levels of personal achievement and efficacy, with 94% of respondents reporting high levels of personal achievement (Beldon and Garside 2022).

Looking at wider, international literature into burnout and paramedics. A systematic review sought to identify the prevalence of burnout amongst paramedics internationally. It found that the range of prevalence was between 16% and 56%. However, the prevalence varied depending on the burnout measure used, and the exact definition of burnout (Reardon et al. 2020). Paramedics in the Beldon and Garside's (2022) study were at the top end of this range, at 50%. This may suggest that paramedics in the UK experience higher levels of burnout than paramedics in other countries, but there is not enough evidence to conclude this for certain. Nevertheless, the study shows that burnout is prevalent amongst paramedics across the world, as would be expected from a caring profession. Limited studies have looked at the causes of burnout amongst paramedics. In a sample of 960 Australian paramedics, Thyer et al. (2018) found that gender affected the development of burnout, with females being one-third more likely to develop burnout. Those who work in urban locations and have a longer length of service (15-19 years) were more likely to develop burnout. However, Beldon and Garside's (2022) study of burnout in the UK captured mixed-method data. Qualitative data highlighted how participants were frustrated at organisational factors and felt that this had led to burnout. Issues such as finishing work late, missing meal breaks and inappropriate coding of

emergency calls were cited. Additionally, a disconnect between management and frontline staff leading to feeling undervalued and not receiving positive feedback was cited by over half of the participants. Whilst there appear to be personal factors such as gender, length of service and location that contribute to burnout, this study on UK paramedics points towards organisational and cultural factors within the structure of the ambulance service that are a significant source of stress and appear important in the development of burnout.

3.1.11.1.3 Psychological Trauma

Life-threatening calls make up a small minority of calls that a paramedic deals with. Although this is a small proportion of the workload, paramedics are exposed to traumatic incidents, such as dealing with death, major trauma and significantly unwell children. Wild et al.(2016), in their longitudinal study of apprentice paramedic students, found that all students had been exposed to at least one traumatic incident over a two-year period. Exposure to psychological trauma in this way can lead to severe mental health problems such as PTSD and major depression (Shepherd and Wild 2014). Indeed, in one cohort of ambulance workers 15.5% were found to have clinical symptoms suggestive of PTSD (Shepherd and Wild 2014). Another prospective, longitudinal study found that 8.3% of the cohort of apprentice student paramedics developed PTSD at some point over the 2-year study period and 10.6% of students developed a major depressive episode (Wild et al. 2016). Bennett et al. (2005) sent questionnaires to all 1029 paramedics and technicians in a large ambulance trust. They found that 15% of females and 23% of males had met the threshold for PTSD, and 10% for depression. These studies used validated questionnaires to self-report symptoms and it may be that there is a higher figure for PTSD in Bennett et al's.(2005) study due to self-selection bias of participants who have experienced mental health problems being more likely to take part in such a study. There was a 60% questionnaire return rate which, whilst this is a good response rate when compared to other large-scale healthcare studies, has the potential for self-selection bias. The impact of traumatic incidents is highlighted by qualitative studies as well. Williams' (2013a) qualitative study whose student

paramedic participants repeatedly spoke about dealing with two traumatic events, resuscitation and trauma, more commonly than other incidents when discussing emotional labour. Williams' (2013a) participants are student paramedics, and it could be that they find situations more stressful due to minimal exposure to resuscitation and trauma. Nevertheless, the combination of qualitative and quantitative studies suggest that paramedics feel that traumatic incidents are a potentially potent stressor, and that exposure to traumatic events can lead to severe mental health problems.

3.1.11.1.4 Organisational Stress

Whilst stressors as a result of patient-facing activities may be more obvious, paramedics point towards pressures within the ambulance service as a significant source of stress (Clompus and Albarran 2016). Some specific stressors that were highlighted was the target-driven culture of the ambulance service which saw managers auditing activation times, on-scene times and time spent at hospital rather than the clinical quality of patient care. Paramedics have seen their work become more complex, but resource constraints are having an impact on their ability to provide care, leaving many paramedics tired and exhausted (Clompus and Albarran 2016). Beldon and Garside (2022) found that organisational factors were significant in the development of burnout. They found that issues such as unsupportive management, forced overtime and inappropriate use of the ambulance service were significant sources of stress and more likely to predict burnout. Organisational factors should be viewed as a significant stressor because Bennett et al. (2005) found that stress as a result of organisational factors independently predicts more severe PTSD, perhaps due to a greater tendency to dissociate at the time of a traumatic incident. This would suggest that organisational stressors may lower overall resilience and make paramedics more vulnerable to incident-related stressors.

3.1.11.2 Coping and Protective Factors

The review will now explore the next central concept of resilience in relation to paramedics: coping and protective factors. This passage will explore coping mechanisms and protective factors used by paramedics that are reported within the literature.

3.1.11.2.1 Humour

Williams (2013b) identified humour as one of two main themes when looking at how student paramedics deal with emotion work. Student paramedics unanimously saw humour as a positive coping mechanism. Similarly, Clompus and Albarran (2016) describe how their participants used humour to help them cope. The paramedics that were interviewed stated that humour provided a distraction from traumatic incidents that they had attended. Further to that, humour appeared to be used to build camaraderie amongst the clinicians that were present at a traumatic event. This became not just a way of distracting oneself from horrible images, but as a form of informal peer support. High work demands have resulted in paramedics seeing their station colleagues much less, where before there would be much more ‘down-time’ to interact with colleagues and receive informal support. Scott (2007) identified humour as an age-old human activity that unites people and appears to have a collective stress-reducing property. Her study looked at the role of humour in the traumatic experience of sudden deathwork. She identified seven sub-themes in relation to the use of humour. Out of these seven themes ‘Quick-witted quips’ were used the most, for example a paramedic who attended a cardiac arrest who said the patient “woke up dead” (Scott 2007). This demonstrates a common feature of the type of humour used: black humour. That is, humour that could be considered distasteful and twisted but when used appropriately builds trust, rapport and closeness. However, when used inappropriately it can damage and alienate people (Hyrkas 2005). Participants in Williams (2013b) study identify that if somebody external to the ambulance work culture heard the type of black humour being used it would be considered very distasteful and offensive. The use of black humour seems

to help build camaraderie amongst paramedics and helps them to emotionally offload (Lancaster and Phillips 2021). There also seems to be a common understanding of the boundaries of black humour, such as a seriously unwell child being off-limits (Lancaster and Phillips 2021). This demonstrates the unique and collegiate culture that paramedics may be working in, that humour is a key and unique component of this culture and that this may have a part to play in resilience. This may also play a key role in receiving informal support from colleagues.

3.2.11.2.2 Informal Support

Two studies identified support networks as something important to paramedics' resilience. Support came from several different avenues: peers, family, friends, mentors and management. Participants in Williams (2013b) and Clompus and Albarran (2016) both cited work colleagues as a huge avenue of support for them. Often this was informal, but the paramedics seemed to value this immensely. Additionally, paramedics would prefer to talk with their colleague who would understand the situation rather than a family member. Indeed, some paramedics expressed that they were concerned about sharing information with their family so as not to burden them. Further than talking with peers, both studies found that paramedics seemed to have 'trusted' colleagues, whose opinion they valued and who acted as a mentor to them, often unofficially and informally. There were mixed feelings across both studies about approaching a manager to discuss concerns, with paramedics indicating that it depended upon the particular individual, rather than their status or job role. This emphasises the importance of support from colleagues and a culture where informal support is forthcoming may be important.

3.1.11.2.3 Life Outside of Being a Paramedic

There appears to be some significance with life events that occurred before becoming a paramedic, and lifestyle. Some paramedics indicated how very negative childhoods attracted them to this caring profession (Clompus and Albarran 2016)

and that many of their colleagues had awful upbringings or were dealing with emotional wounds. Paramedics felt that this had given them the skills to deal with the range of stressors that they face in the workplace, indicating that this experience improved their resilience. Wild et al.(2016) found that 41.5% of apprentice paramedic students had a history of psychiatric illness, most commonly major depression and PTSD, and that this was above the average for the general population. However, in their quantitative prospective study they found that, rather than building resilience, a history of psychiatric illness made developing PTSD five times more likely and severe depression four times more likely when faced with a traumatic incident (Wild et al. 2016). There is perhaps a disparity between what paramedics feel may be beneficial in developing resilience, and what the reality is. Alternatively, it may be that paramedics with a history of emotional turmoil or psychiatric illness have the skills to deal with day-to-day stressors but are more vulnerable to psychological trauma.

Lifestyle factors have been shown to have an effect on the development of mental health problems. Hutchinson et al. (2021) found that, in particular, those who had poorer sleep were more likely to develop anxiety, depression, psychologcial trauma and experience stress. They also found a weak correlation between high alcohol use and the development of depression and anxiety, and low physical activity and the development of depression, anxiety and psychological trauma. They conclude that futher research is needed into these weak correlations. Within the international literature, Harris et al. (2023) also found, through a longitudinal study, that pre-existing depression was associated with are higher likelihood of developing sleep disorder and shift-work disorder, which in turn can worsen depression symptoms (Hutchinson et al. 2021).

3.1.11.2.4 Suppression, Dissociation and Dehumanisation

Paramedics in two studies describe how they suppress emotions in order to deal effectively with a patient. The paramedics describe mainly traumatic events, citing that there is a need to focus on the technical skills and block off their emotions (Williams 2013a; Clompus and Albarran 2016). Williams (2013a) links the disparity

between what the student paramedic feels and the emotion that they show to emotional labour, specifically emotional dissonance. It appears that paramedics who utilise suppression are describing aspects of surface acting (Hochschild 2003). Surface acting is when the outward display of emotion does not match the emotion truly felt, and results in emotional dissonance, which has been positively associated with burnout (Badolamenti et al. 2017). The demand for emotional labour was heightened when paramedics felt a personal connection with the patient (EG they reminded the paramedic of a relative). This created a greater degree of emotional dissonance and a greater need for surface acting. Although paramedics felt that this helped them to cope with the situation, Wild et al.(2016) found that this suppression of emotions was positively associated with an episode of PTSD or major depression in the two-year study. This suggests that a technique that paramedics use to deal with the immediate emergency situation could result in more psychological harm.

Paramedics in one study described how they would detach themselves mentally and emotionally from what they were dealing with, to the point where they did not feel that they were in their own bodies (Clompus and Albarran 2016). This dissociation was described by paramedics to help them to cope emotionally with mainly traumatic incidents. Shepherd and Wild (2014) describe, in their pilot study of forty-five ambulance workers, how a greater level of emotional objectivity allowed paramedics to perceive that they coped better with difficult callouts. Objectivity would be achieved by dissociation from the patient. The study used an unpublished questionnaire and looked at the participants' perceptions of coping, rather than an objective measure. Two quantitative studies attempted to objectively measure dissociation in response to traumatic incidents. Wild et al.(2016) found that a tendency to dissociate was associated with a risk of developing PTSD or depression. Bennett et al. (2005) supports this finding and reports that dissociation at the time of traumatic incident was one factor that was associated with more severe PTSD. It is possible that, again, a technique that many paramedics use to cope with stress may increase risk of poor wellbeing and mental health problems (Bennett et al. 2005).

Williams (2013a) describes how student paramedics used dehumanisation as both a coping mechanism and as a means of focussing on the task at hand. Students describe not seeing the critically unwell patient as a person, instead focussing solely on their clinical role. This internal process protects the paramedic from the emotional

cost of caring and is seen as deep acting (Hochschild 2003) whereby internal feelings are changed. This prevents a dissonance between the outer and inner feelings and enables coping. Badolamenti et al. (2017) suggests that deep acting strategies are less likely to lead to detrimental effects. However, participants in Williams (2013a) and Clompus and Albarran (2016) both draw attention to humanising moments, where patients remind the paramedics of family members or friends. For example, a sick child who reminds a paramedic of his son. This evokes a deeper connection and empathy with the patient that prevents dehumanisation from taking place, and requires surface acting on the part of the paramedic.

3.1.12 Conclusion

The themes highlight numerous stressors that paramedics may face. The main stressors reported are as a result of patient-facing activities such as emotion work and psychological trauma. However, there is also some indication that organisational issues may be a source of stress for paramedics, and may worsen the effects of other stressors such as emotion work.

There are many ways that the literature reports paramedics may cope with different stressors. Humour and informal support may be linked to cultural and organisational factors which might support these mechanisms.

However, where evidence exists there is limited papers that have looked into the specific area for each theme. There is support for some of the issues from international paramedics, such as the issue of burnout in Australian paramedics, but there is a lack of depth in the literature around the experiences of UK paramedics.

This review highlights gaps in the literature:

1. There is very little literature exploring resilience in the context of newly qualified paramedics.
2. The literature as a whole focusses mainly on the effects of patient-facing activities such as psychological trauma, emotional labour and burnout. There is some consideration of other stressors that may relate to cultural, social, historical and organisational factors but these are not well developed or

conceptualised. This is particularly true for the experiences of newly qualified paramedics entering the workforce, and the effect that these experiences have on resilience.

The following section seeks to understand what is known about the experiences paramedics may have as they transition into the workforce. It focuses on the socialisation process of newly qualified paramedics informed by the experiences of other newly qualified practitioners.

3.2 SECTION 2: Professional Socialisation

3.2.1 Introduction

This section will explore the professional socialisation of practitioners as they transition from healthcare student to newly qualified practitioner. The review will search the literature studying the socialisation process that affects newly qualified paramedics. This will be compared to literature in wider healthcare professional groups to help develop a greater understanding of the experiences of paramedics and to identify gaps in the literature. It will highlight how there is limited literature exploring the experiences of newly qualified paramedics as they transition to the workforce, and that the literature that does exist does not consider the effect on resilience of individuals. In doing so, it will help to justify why the current study is needed to understand the experiences of newly qualified paramedics and how this may impact on their resilience.

3.2.2 Background

Socialisation is described as the way in which professionals obtain and internalise the values, attitudes, knowledge and culture of a profession (Devenish et al., 2016). Cornelissen and van Wyk (2007) present a well-used model of socialisation. There are three phases to this socialisation model: anticipatory socialisation, formal

socialisation and post-formal socialisation (Cornelissen and van Wyk 2007). Anticipatory socialisation is concerned with the ideas someone has about a profession before starting training and education. This is affected by the ideas they have about a particular profession growing up and may be affected by the media, personal experiences and experiences of family members. Formal socialisation begins during recruitment and education. For paramedics in the United Kingdom this is the phase where students undertake a BSc (Hons) in Paramedic Science at university. This phase is characterised by content taught at university and exposure to the practice environment when on practice placement. Post-formal socialisation is the transition period where a paramedic moves from student to newly qualified paramedic. This study is concerned with the experience of newly qualified paramedics during their first year of employment, but this literature review will look at the whole process of socialisation that starts during university education and into the transition to practice.

3.2.3 Search Strategy

This literature review sought to understand the socialisation experiences of newly qualified paramedics in the UK.

EBSCOHost database was searched using the key terms in table 3. The following databases were searched because of the relevance of the database to the topic area: Academic Search Ultimate, APA Psyc, CINAHL Complete, Communication Source, MEDLINE Complete, PsychINFO and Science Direct. Additionally, the database Web of Science was searched using the same search terms. Truncation was used using the * character. This enabled different endings of words to be searched for and for the Americanised spelling of socialisation to be searched. The Boolean operators ‘and’ and ‘or’ were used to construct the search. Key words were used rather than subject headings to make the search as broad as possible because it was anticipated that there would be a paucity of literature in this area.

Table 3 Search Terms

Key Term	**Search Terms**
Paramedic	Paramedic*, “student paramedic” “Ambulance Service”, “Ambulance Staff”, “Ambulance Work*”, “Emergency Medical Services”, EMS
Socialisation	Sociali*ation, Transition, “Newly Qualified”, Intern, Apprentice, Becoming, Enculturation

There was expected to be a paucity of literature around paramedic socialisation so the search was not limited by geography or date. Instead, the review would consider and discuss the applicability of studies that were conducted in other countries or that were dated. English language limiter was applied because there was no resource to reliably translate any non-English language studies. The search was also limited to academic journals and dissertations.

Inclusion and Exclusion criteria were used to screen results of database searching, see table 4. This was done firstly by reading the title and abstract of the papers to determine if they meet the inclusion criteria. Those that did meet the inclusion criteria, or if it was unclear whether they met the inclusion criteria from reading the title and abstract, were then read in full. Those papers that met the inclusion criteria and did not meet the exclusion criteria were included in the study.

Table 4 Inclusion and exclusion criteria

Inclusion Criteria	**Exclusion Criteria**
Primary research, including doctoral dissertations Study includes information of paramedic socialisation	Case studies, literature reviews, masters’ dissertations

3.2.4 Results

There were five papers identified that were relevant and met the criteria, which are summarised and compared below. Three papers were journal articles and two were doctoral dissertations. All studies were a qualitative design.

Scott Devenish emerged as the leading author looking at socialisation in paramedics. He firstly wrote his doctoral thesis looking at the socialisation experiences of paramedic in both the UK and Australia. This qualitative study analysed a socialisation framework in relation to the reported experiences of 34 newly qualified paramedics. Interviews were conducted and constructivist grounded theory used to analyse data, This analysis resulted in the adaptation to the popular socialisation model (Cornelissen and van Wyk 2007) by describing an additional post-internship phase of socialisation that accounted for newly qualified paramedics' experiences up to a year after qualification (Devenish 2014; Devenish et al. 2016). Within this thesis and a subsequent journal publication (Devenish et al. 2016) they provide an in-depth account of the process of socialisation that paramedics experience as they enter the workforce. Different participants were interviewed who were at different stages of the socialisation process. These papers describe the process in depth, but do not link the experiences to outcomes such as resilience or emotional turbulence to the individual paramedics. This process will be explored and presented alongside other literature. The key themes that account for the experiences of newly qualified paramedics included moral outrage, capitulation to the culture in order to fit in, and a reality shock.

Donaghy (2020) undertook an ethnography over 18 months, for his doctoral thesis, to understand the experiences of student paramedics in practice placement, with a focus on enculturation. This was motivated by his experience as an educator and seeing changes in behaviour from student paramedics following practice placement. There were key themes that emerged that were similar to Devenish (2014) in that there was a prominent hidden curriculum, that there was a professional identity that seemed disparate to the reality of ambulance work, and that student paramedics prioritised fitting into the ambulance culture. Givati et al. (2018) interviewed student paramedics, educators and paramedic mentors and also found that there was a

disparity between the culture that students experience in university and the culture in practice placement, and that this affects their developing identity and creates a reality shock. This work also provides insight into the process that students and newly qualified paramedics go through, but also does not link these to positive or negative outcomes as a result of this, such as its' effect on resilience.

Filstad and McManus (2011) conducted an ethnography of newly qualified paramedics, and compared them to an ethnography of office workers, in Norway. They were focussing on how new professionals transformed knowing into workplace knowledge. They emphasise the importance of newly qualified paramedics fitting in, and highlight how the key to being able to demonstrate workplace knowledge is in relations with colleagues. This study gives further support to the studies above which highlight the strong culture found within the ambulance service. Interestingly, in comparison to office workers, they state how the expectation of newly qualified paramedics was that they did not try to change the culture or 'rock the boat', as opposed to office workers who were encouraged to improve the working culture.

Thompson (2015) conducted a pilot study using a focus group of four paramedic students who were close to transition to autonomous practice. This study sought to understand their concerns about being a newly qualified paramedic. The main theme was that they did not feel confident in their ability. This was a small pilot study utilising one focus group. It is unclear how the transcript of the focus group was analysed which is a limitation of the study and makes it difficult to understand how the themes were generated.

Two overarching themes emerged from these studies that accounted for student paramedics' experiences as they transition to newly qualified paramedic. These were fitting in and the effect of professional identity on their experiences. The papers from the review will present how these themes are grounded in the literature, and then wider literature will be explored around these themes. Most of the wider literature is taken from other allied health professionals, mostly nursing, to help understand and conceptualise the evidence in more depth.

3.2.5 Discussion

3.2.5.1 The importance of fitting in

The papers in the literature review highlight how fitting in to the culture of the ambulance service was important to newly qualified paramedics and student paramedics. Devenish et al. (2016) highlights how new graduates prioritised fitting in and gaining acceptance by colleagues. They did this by taking on the language, behaviours, and attitudes of colleagues. For example, they were expected to be disparaging of management and be pessimistic about the job in order to be accepted. Donaghy (2020) highlights the sub-cultures that exist in the ambulance service and that he observed students changing their behaviour and language in order to fit in with colleagues and those cultures. Filstad and McManus (2011) support this notion and highlight how established paramedics expect newly qualified paramedics to not ‘rock the boat’, but to go along with the culture, and that this could unlock further learning from colleagues. Devenish (2014) describes how fitting in and being treated as equals was seen as one important aspect in improving self-confidence in performing the role of the paramedic, and a lack of confidence was highlighted by the participants of Thompson (2015) when thinking about their transition to newly qualified paramedic practice.

There are similar experiences reported by newly qualified nurses in the literature. Newly qualified nurses identify the hardest aspect of their new role is navigating the organisational system, such as interpersonal relationships with colleagues and understanding ward rounds, rather than the theory-practice gap or clinical issues (Feng and Tsai 2012). This was particularly difficult for newly qualified paramedics who experienced a para-military culture that was vastly different to their university experience (Devenish et al. 2016). Kramer (1974) termed this ‘reality shock’. Both Devenish (2014) and Donaghy (2020) report how newly qualified and student paramedics experience a reality shock when their expectation of being a paramedic is different to the reality. That is, there is a difference between the expectation of what the practice environment would be like versus the reality of the environment.

Healthcare professionals spend years training to be in a work environment for which they thought they were prepared, only to find out that they were not.

Hunter and Cook (2018) highlight how nurses describe moving ‘from the wilderness’ of not fitting in, not knowing how to act and feeling like an outsider, to ‘being part of the wolf pack’ where they are able to manage relationships, work as a team and feel a sense of belonging. This sense of belonging is presumed to be a positive thing but this research does not make clear why this is so important to newly qualified nurses. Devenish et al. (2016) describe how newly qualified paramedics manage fitting in by changing their behaviour, attitudes and values, and they call it moral capitulation. They describe how newly qualified paramedics initially feel a period of moral outrage when the values of the practice environment are at odds with what they experienced at university, but they achieve acceptance amongst colleagues by capitulating on their values where necessary. This capitulation of values has also been described in the wider literature. Studies describe how newly qualified professionals often compromise on their morals and values in order to fit in. Curtis et al. (2012) describes how student nurses wanted to uphold professional values of compassionate care, but in clinical practice they saw a variability in how this was upheld in the face of the realities of practice. Therefore, when faced with the realities of having to survive the day-to-day challenges of practice they often felt the need to compromise on some of their values. Wong and Trollope-Kumar (2014) studied student doctors and found that some participants experienced situations that challenged their own values. One participant found that observing a forensic autopsy challenged their idea of the reverence of the human body and they found this difficult to deal with. The same participant witnessed a senior doctor humiliate a junior doctor, which led them to question how humanised values were being implemented in practice. Similarly, they observed how surgeons seemed detached from patients they were operating on and struggled to reconcile how to maintain a person-centred approach in these circumstances. These experiences caused the participant to question their ability to practice as a doctor and to meet the cultural expectations. Wong and Trollope-Kumar (2002) asserts that nurses still felt they were not prepared for the realities of practice in 2002. He highlights how student nurses were on clinical placement in short-staffed wards and were learning how to take short-cuts and risks that go against what they were taught in theory. This bred increased cynicism and

broke down some of the professional values. Devenish et al. (2016) identified that the paramedics they studied experienced transitionary reality shock also as a result of a discrepancy between theory and practice, and that this was a source of significant stress. The authors argue that, although socialisation starts during education, clinical placement as a student does not prepare paramedics for the reality of negotiating the workplace as a registered paramedic.

The literature discusses how role models can mitigate against some of the negative effects of a culture, such as moral capitulation. Hunter and Cook (2018) highlighted how some nurses encountered positive role models who were able to balance compassionate care and the core values of nursing with the wider demands of the role. Participants in this study indicated that these role-models were invaluable in showing how they might achieve this once qualified. Mei et al. (2022) identified the important link that positive role models can provide to self-efficacy, professional identity and resilience, and that those student nurses who had positive role models developed clearer professional identity and improved resilience. Cornelissen and van Wyk 2007) describe this process as students looking at ‘role incumbents’, or people already doing the role they aspire to, to learn about normative behaviour as a model of how they should act to be accepted into the fold, but that this may be a positive or a negative process. Traynor and Buus (2016) identifies how a strong professional identity of professional cultures is important for maintaining the social structure and social control of the professional group. Furthermore, there is a process that goes beyond just role modelling to role incumbents providing rewards or punishments as a means of maintaining social control and ensure conformity to the norms and values of the work culture (Cornelissen and van Wyk 2007). This shows how it may be very difficult for students and newly qualified members of staff to uphold their professional values where the majority of role incumbents do not do that. It is easy to see, therefore, how students may feel they need to compromise on those values in order to cope with the realities of practice.

In summary, the paramedic socialisation literature highlights how newly qualified paramedics view fitting in as important, and they prioritise this. Wider literature from other healthcare profession groups shows that this is an experience shared by many. Newly qualified paramedics experience a reality shock as they enter practice and in order to fit in they may compromise on their values, termed moral capitulation. The

literature in this section does not address the benefits for newly qualified paramedics of fitting into the culture. Wider literature hints at benefits for self-efficacy and resilience but the effect of fitting in (or not fitting in) is unknown in relation to newly qualified paramedics.

3.2.5.2 The role of professional identity

The literature demonstrates how student paramedics and paramedics transitioning to the workforce are grappling with issues of professional identity and professional expectations. Donaghy (2020) describes how student paramedics found a disparity between the professional expectations at university and the professional expectations that they encountered in professional practice. This was the core of the hidden curriculum that he describes, which are the unintended and subtle messages that are given to students outside of the formal curriculum learning. Donaghy (2020) argues that the hidden curriculum adversely affects intended learning, and that it stifles curricula and policy-makers. Chapter two presents the difficulties in defining a modern paramedic, and that the idea of a paramedic is still grounded in the historical idea of a life-saver and hero. Chapter two also describes the pseudo-military nature of the ambulance service structure (McCann et al. 2013) and that students appeared to emulate the expected superhero and life-saving narrative of ambulance work (Donaghy 2020). Givati et al. (2018) highlights the experiences of newly qualified paramedics in relation to identity. They describe how a core aspect of the socialisation of paramedics is the negotiation and construction of professional identity, but that this is often at odds with the newly qualified paramedic's conceptions of paramedic identity.

There are similarities with nursing socialisation literature in terms of the role of professional identity in the socialisation process. Research looking at newly qualified nurses identified that student nurses experience two different and often conflicting forms of nursing: in the classroom and in practice (Goodare 2015), and that this is represented in the hidden curriculum experienced on placement. It may be assumed that the process of internalising values, attitudes and cultures of a profession is a

positive process, but it is likely that people's experience of professional socialisation can be positive or negative, and have wide-reaching consequences (Goodare 2015).

During socialisation of newly qualified staff there is a merging of the individual's personal identity: their culture, beliefs values, behaviours, with the professional culture and all that it entails. The navigation of this process helps to build a person's professional identity (Ajjawi and Higgs 2008). Fitzgerald (2020) reveals how values, beliefs and ethics are seen as the most poignant aspects of professional identity. They highlight that because clinical knowledge and skills may be similar across professions many healthcare professions feel part of the professional group based upon values, beliefs and ethics, and these then inform behaviours. The role of the established group in role modelling these aspects means that arguably the development of professional identity should be explored in the context of social identity. Going through the socialisation process, and developing a professional identity gives professionals a sense of belonging (Maginnis 2018).

This demonstrates the power of the social group in developing professional and personal identity. Fitting in and being treated as equals was seen as one important aspect in improving self-confidence in performing the role of the paramedic (Devenish et al. 2016). It has been postulated that the social context of professional identity is so important that professional identity may be a form of social identity (Yazdannik et al. 2012). This is backed up by the idea that professional identity is the result of interactions and relationships with others, and informed by social and historical contexts (Hong 2010). Additionally, professionals, such as paramedics, can be seen as such a salient role in society that professional identity becomes inextricably linked with personal identity, and that a professional may be more likely to be judged on their professional identity rather than, for example, their nationality, ethnicity or gender (Adams et al. 2006).

3.2.5.3 The importance of Professional Identity

The paramedic socialisation literature highlights the processes that newly qualified paramedics may go through as they transition to the workforce. However, there is

little known about the importance, impact and effect of a coherent professional identity in relation to paramedics. Wider literature helps to illuminate the possible benefits of developing a strong professional identity. As has been discussed previously, professional identity, particularly in professions so salient as healthcare professions, is linked to self-concept (Johnson et al. 2012). Self-concept describes the way that people think about themselves, that includes the components of awareness, esteem, worth and confidence. It explains how professional identity feeds into the overall sense of self, and is a way in which individuals describe and evaluate themselves (Johnson et al. 2012). It has been postulated in literature that a congruent professional identity, and therefore a positive self-concept, has been positively linked with job satisfaction and motivation in Nurses (Cho et al. 2010). Linked to this, the image of nursing in society may be an important factor in the motivation to undertake and maintain a nursing career (Cho et al. 2010). Although this study was undertaken in Korea, it highlights how experiences of healthcare professionals may share similarities in this regard. Those professionals who have been through the socialisation process and developed a professional identity have been found to have higher self-efficacy and confidence than those who are still training and are still developing their professional identity (Hong 2010). Although not linked specifically to attrition or professional identity, Devenish et al. (2016) describe how successful socialisation can improve self-confidence in being a paramedic, which may be significant if this is the case because low self-confidence was identified by transitioning paramedics (Thompson 2015; Devenish et al. 2016).

Clements et al. (2016) explored the concept of commitment, its relationship with professional identity and the affect it may have on nurse attrition. This was borne out of a consideration of why people may maintain a course of action, such as a career in healthcare, in the face of competing and potentially more attractive alternatives (attrition). They found that a congruent and strong professional identity is a strong predictor of commitment, and that commitment is positively associated with staff retention. In particular, the concept of affective commitment embodies an emotional aspect to the target (in this case a career in nursing) and this aspect of commitment, when well developed, improves dedication, motivation and retention (Meyer et al. 2002). Brown et al. (2012) make the link between healthcare students and professionals experiencing the clinical environment and developing a professional

identity, the development of a professional identity and increased affective commitment, and commitment reducing attrition. In this way the literature highlights how the process of socialisation can have a direct effect on attrition and retention of staff, mediated by the development of a professional identity.

It appears that professional identity is an important concept in relation to newly qualified paramedics, but the literature again fails to identify the benefits of a strong and congruent professional identity for paramedics, and vice versa. Wider literature points to benefits of self-efficacy, commitment and improved retention. If this were true for newly qualified paramedics then this would be important to know because chapter two identified a problem with paramedic attrition from the ambulance service, and this chapter has highlighted issues with confidence in newly qualified paramedics. However, little is known about the relationship between professional identity, self-efficacy and attrition amongst newly qualified paramedics.

3.2.6 Summary

This section has highlighted some of the potential experiences of newly qualified paramedics as they transition to the workforce. It has identified how there are many potential stressors that newly qualified practitioners face as they transition into the workforce. However, the paucity of literature focussing on paramedics, and particularly paramedics in the United Kingdom, means that not much is known about how they navigate this process, the factors that are particularly difficult for them in navigating this transition, and, crucially, the effects of this process on their resilience, wellbeing and determination to remain in the profession.

3.3 Summary of Gaps in the Literature

The literature presented has shown that paramedics are a professional group who are particularly vulnerable to poor resilience, poor wellbeing and poor mental health. The literature has tended to explore the effects of patient-facing activities on the

wellbeing of paramedics. Although there are hints to organisational and cultural aspects affecting wellbeing, this has not been well explored, particularly in relation to newly qualified paramedics. Therefore, the extent to which other factors such as culture affect the resilience of newly qualified paramedics is unknown.

Literature shows how the socialisation process for newly qualified healthcare professionals can be difficult and turbulent for a number of reasons. Chapter two demonstrated how the context of ambulance work is often difficult and complex, and can affect paramedics' wellbeing. There is scant literature exploring the experience of newly qualified paramedics during their transition to professional practice, particularly with a view on resilience. Literature has not explored which socialisation experiences improve the resilience of NQPs, nor what experiences challenge the resilience of NQPs. Therefore, there is little evidential basis in designing interventions to make the transition process such that it will support the resilience of paramedics in the ambulance service, increase their wellbeing and enable them to be retained in the ambulance service to reduce attrition. This study placed resilience as a core concept to help to construct participants' experiences and to understand how to support resilience during the transition process.

3.4 Personal Reflection on the Chapter

The literature around socialisation of newly qualified professionals resonates with me as a paramedic and as an educator. I recognise, as a paramedic, the impact that the culture and colleagues can have on the ease with which one can perform their role. As an educator I also recognise issues around prioritising fitting in that helps to explain my experience of changes in student behaviour after their first placement and their first exposure to the practice environment.

As mentioned in chapter one, the literature around paramedic resilience does not particularly resonate with me. My experience was that patient-facing stressors were not the main cause of my stress when working in the ambulance service. For this reason the literature seems incomplete and often superficial. As I start to undertake this research I wonder whether the socialisation experiences of newly qualified paramedics might be their main challenge to their resilience, rather than other stressors that have been identified. However, going in to the data collection phase of

the study I am not sure at all what the newly qualified paramedics will say and what aspects of their role they are going to identify as the most stressful. For this reason, I am even more convinced that this research is needed to understand this.

CHAPTER 4: Methodology and Method

4.1 Aims and Research Questions

Chapter three highlighted that, although there is a wide range of research exploring resilience in paramedics, little is known about the factors which affect the resilience of newly qualified paramedics. The transition from student to practitioner has been found to be turbulent amongst healthcare professionals, but little is known about the effect of transition experiences on the resilience of newly qualified paramedics.

Therefore, based on the literature outlined in chapter three, the overall aim of this study is to understand the transition experiences of newly qualified paramedics and the effects of their experiences on their resilience, a significant gap in our understanding. To do this the research is designed to answer the following research questions:

1. What are the experiences of newly qualified paramedics as they transition from student to paramedic?
2. What factors are important in affecting the resilience of newly qualified paramedics?
3. What recommendations can be made to support the transition of newly qualified paramedics in supporting resilience?

4.2 SECTION 1: Methodology

4.2.1 Introduction

This section presents the methodological considerations of the study. It identifies social constructionism as the theoretical underpinning of the study. This emphasises how peoples' understanding of the world is influenced by social, cultural and historical factors. These factors were shown to be important considerations in chapter two. Constructivist grounded theory was used as a framework for collecting

and analysing qualitative data in this mixed-methods study. The development of grounded theory is explained with a focus on how it aligns with the ideas of subjectivity of social existence found in social constructionism. The section then explains how this mixed-method study planned to mix the methods to give a deeper understanding of newly qualified paramedics' experiences. Finally, the section will address issues of rigour in the constructivist grounded theory method and how this was addressed in this study.

4.2.2 Social Constructionism

The theoretical underpinning of this study is social constructionism. Constructionism argues that reality is shaped and constructed by and between individuals, influenced by their historical and cultural context (Guba and Lincoln 1994). These historical and cultural factors were explored in chapter two in relation to ambulance services. They were shown to be important considerations when exploring the context of ambulance work. Although there is some diversity in the features of social constructionism, there are some key features and beliefs that identify a social constructionist (Kenneth 2009; Burr 2015). They are:

- A critical stance towards taken-for-granted knowledge
- Historical and cultural specificity
- Knowledge is sustained by social processes
- Knowledge and social action go together.

4.2.2.1 A critical stance towards taken-for-granted knowledge

Social constructionism challenges the objective basis of conventional knowledge (Kenneth 2009), to challenge the notion that the reality of the world appears to us through our unbiased observation of it (Burr 2015). An example is the category of 'male' and 'female', to which society demands each of us is assigned at birth. Observations of the world suggest that each human can fit into one of these dichotomous roles, perhaps based on their sex organs at birth. However, when

challenging that observation through a social constructionism lens, it becomes apparent that there are a lot of areas of grey areas, such as gender reassignment surgery, that lead us to believe that it is very problematic to unambiguously assign each human to one of these categories. This issue is further compounded by the fact that the way in which society is structured and functions reinforces these two categories: male and female toilets, role and conduct expectations of femininity and masculinity. This leads social constructionists to conclude that categories such as these are artificial, not naturally occurring, and a result of the way people have interacted to build society (Kenneth 2009; Burr 2015).

There have been assumptions made about resilience of paramedics, as identified in previous chapters. For example, categorising stressors such as psychological trauma has directed much of the research looking into the resilience of paramedics. A social constructionist approach challenges the application of these categories and views it as problematic. For example, what may be traumatic to one person may not be to another. Therefore, a social constructionist approach seeks to engage with paramedics to understand the construction of their reality and the stressors that they identify, acknowledging that this may, and probably will, be different from person to person, and culture to culture.

Ungar (2004) highlights how a constructionist approach to resilience means rejecting a false dichotomy of people being ‘resilient’ or ‘not resilient’. These categories are particularly problematic because, as identified earlier, there is no single definition or conceptualisation of resilience. Therefore, a constructionist approach to studying resilience will focus on the individual, how they interact with others and within their environment to construct their perception of wellbeing (Ungar 2004).

4.2.2.2 Historical and cultural specificity:

The way in which we understand the world is specific to both the historical timeline in which we are looking at the world, and the culture to which we belong. The understanding of aspects of the world were different at different points in history. Similarly, cultural factors, including economic factors, social structures and our

immediate environment, affect the way we view and experience the world (Kenneth 2009; Burr 2015). Social constructionism identifies these influences and acknowledges that this can account for differences in perceived reality between individuals and cultures, and that no one way of viewing the world should be seen as better (Burr 2015).

Aburn et al. (2020) highlight the importance of considering culture and group interactions when studying resilience in healthcare professionals. Resilience is not an inherent ability that can be simply uncovered, but a complex result of relationships, environment and cultural context (Masten 2001). In short, resilience is affected by historical and cultural sensitivity and the social constructionism paradigm provides a basis to study and understand resilience in paramedics.

4.2.2.3 Knowledge is sustained by social processes:

The way that we experience the world, and our knowledge of it, is constructed through interactions with the world and through interactions with others (Burr 2015). The way that we interact, such as use of language, social processes and institutions that are created, perpetuate the constructed reality. However, there is inherent ambiguity in constructed reality and they may evolve and change as social interactions continue to occur (Kenneth 2009). Aburn et al. (2020) identify that resilience is best studied by considering how each culture and individual construct what resilience means to them. They identify how resilience changes over time, it can be built and eroded, affected by social processes and the way that individuals interact with society. This is a view that is shared by Connor and Davidson (2003) in their study of resilience, highlighting that resilience is multi-dimensional, it is not fixed and it varies within an individual across different circumstances.

4.2.2.4 Knowledge and social action go together:

Negotiated understandings of the world affect the actions of human beings. It affects action on an individual level but also affects the way society acts (Burr 2015). It affects social patterns, it influences what is seen as moral and these are social actions that change as constructs vary over time. In fact, knowledge affects the full range of human interaction (Kenneth 2009).

4.2.3 Constructivist Grounded Theory

Glaser and Strauss (1967) first conceived the idea of grounded theory as a result of their increasing disillusionment of the research methods that were being used to study social science. They highlighted that there was an overemphasis on verifying theory and not enough emphasis on the development of theory that accurately reflected peoples' experiences (Kenny and Fourie 2014). They identified that theories which were generated by systematic examination of social research data would more accurately account for experiences than a priori theories applied to data (Glaser and Strauss 1967). Therefore, the end point of grounded theory study is to produce a theory which, having no previous pre-conceptions, accurately accounts for peoples' experiences (Kenny and Fourie 2014).

So, the fundamental starting position of grounded theory is not to start with a theory and set out to test it. Instead, to start out with an area of inquiry, of which little is known, and allow theoretically relevant data to emerge (Strauss and Corbin 1990). It is an inductive process (Morse 2001) that seeks to construct theory about issues that are important to peoples' lives (Corbin and Strauss 2008). Grounded theory mainly describes an approach to analysing data, in which there are no preconceived ideas or hypotheses. There is a process of conceptualising and constantly comparing data to data, and concept to data, so that theories that emerge are grounded in the data (Glaser and Strauss 1967).

Strauss and Corbin (1994) arguably moved the philosophical basis of classic grounded theory more towards constructionism, identifying the importance of a

multiplicity of perspectives, of historical contexts and human to human interaction (Higginbottom and Lauridsen 2014). It is Charmaz who has emerged as the leading proponent of constructivist grounded theory (Jane et al. 2006). Charmaz (2014) asserts that theories are not merely discovered in the data, rather researchers construct, and co-construct, theories through interactions with people, perspectives and research practices. This is a key difference from classic grounded theory which saw the researcher as a passive analyst of data (Kenny and Fourie 2014). It identifies the researcher as part of the process, not an objective observer, but a co-creator. This concept raises important questions about the researcher's preconceptions, biases and previous experiences in the analysis of data. Charmaz (2014) addresses preconceptions and suggests how researchers may go about identifying preconceptions and mitigating against these erroneously affecting coding. The authors preconceptions, and mitigating factors, will be discussed later.

Constructivist grounded theory aligns well with social constructionism. It emphasises the subject nature of reality and it acknowledges the subjectivity of social existence (Kenny and Fourie 2014). It also acknowledges the position of the researcher as an integral part of the interpretation of peoples' experiences (Jane et al. 2006). It posits that the construction of understanding of peoples' experiences from the data are socially constructed interpretations based on context, interactions, sharing viewpoints and interpretive understanding (Charmaz 2014).

Charmaz (2014) summarises the steps taken when following a constructivist grounded theory approach:

- Identifying the research question
- Recruitment and sampling
- Data Collection
- Initial Coding
- Focused Coding
- Theory Building

However, this approach is not a linear process. Insights, ideas, analytical connections can occur at any point. It is often necessary to revisit data with a different idea to see if it is grounded in the data. The constant comparison of concept

to data is a key tenet of grounded theory, therefore the process cannot be linear (Rieger 2019).

4.2.4 Mixed-Methods and Constructivist Grounded Theory

Mixed Methods approaches are defined by the collection, analysis and integration of qualitative and quantitative approaches to produce understanding beyond what either approach alone could have produced (Guetterman et al. 2019). Creswell (2009) identifies three ways that a researcher may use a mixed methods approach: Sequential procedures are when one method is used first and then the other method is employed afterwards to expand the findings. For example, a large-scale questionnaire may be used to collect quantitative data that is followed up by qualitative interviews of participants of particular interest identified in the questionnaire phase. Concurrent procedures are when the researcher deploys quantitative and qualitative methods at the same time to provide a comprehensive analysis of the area of inquiry. Transformative procedures are when the researcher employs mixed methods through a theoretical lens that provides the framework for data collection and analysis. Bryant and Charmaz (2019) highlight a developing tendency to use a mixed-method approach in grounded theory. They suggest that there is an almost infinite number of ways that researchers can mix methods, and they encourage researchers to be creative in how they approach it. They coin the phrase Mixed Grounded Theory to describe this approach.

Johnson et al. (2010) contend that paradigms do not necessarily lead to the use of different methods. Although some methods fit better within certain paradigms, methods can be used in a variety of ways (Johnson et al. 2010). Mixed methods researchers maintain that it is possible to mix methods and maintain congruence with their respective paradigms. Johnson et al. (2010) highlight that the human world is rich and complex, and that using multiple methods can help to enlighten peoples' experiences.

Kaplan and Duchon (1988) employed a mixed grounded theory design in their study of information systems. The qualitative data collected by interviews was analysed

according to grounded theory. Separately, the quantitative surveys were analysed statistically. This was done independently by the two authors. Initially, Duchon indicated that the quantitative data seemed not to reveal any interesting results worth reporting. However, Kaplan, having analysed the qualitative data, remained convinced that there was theory worth pursuing and persuaded Duchon of this. Re-analysis of the quantitative data as suggested by Kaplan did yield statistically significant differences in the data, in support of the qualitative data. This study demonstrates how a grounded theory approach to qualitative data, supplemented by quantitative data, can yield new insights that may not have been gained from one method alone (Kaplan and Duchon 1988).

Walsh (2014) employed a mixed grounded theory approach in her study of IT culture. She highlights how both methods were analysed concurrently, supplementing each other to produce a theory, rather than 'testing' a theory with quantitative data that was derived from qualitative data. Interestingly, although she identifies that the philosophical standpoint of the study was more akin to Glaser's grounded theory approach, that fundamentally the similarities in approach taken by all iterations of grounded theory (Glaser, Strauss and Charmaz) would mean that there is room for a mixed methods approach. In particular, she highlights the overriding outcome of theory building as congruent with mixed-methods approaches (Walsh 2014).

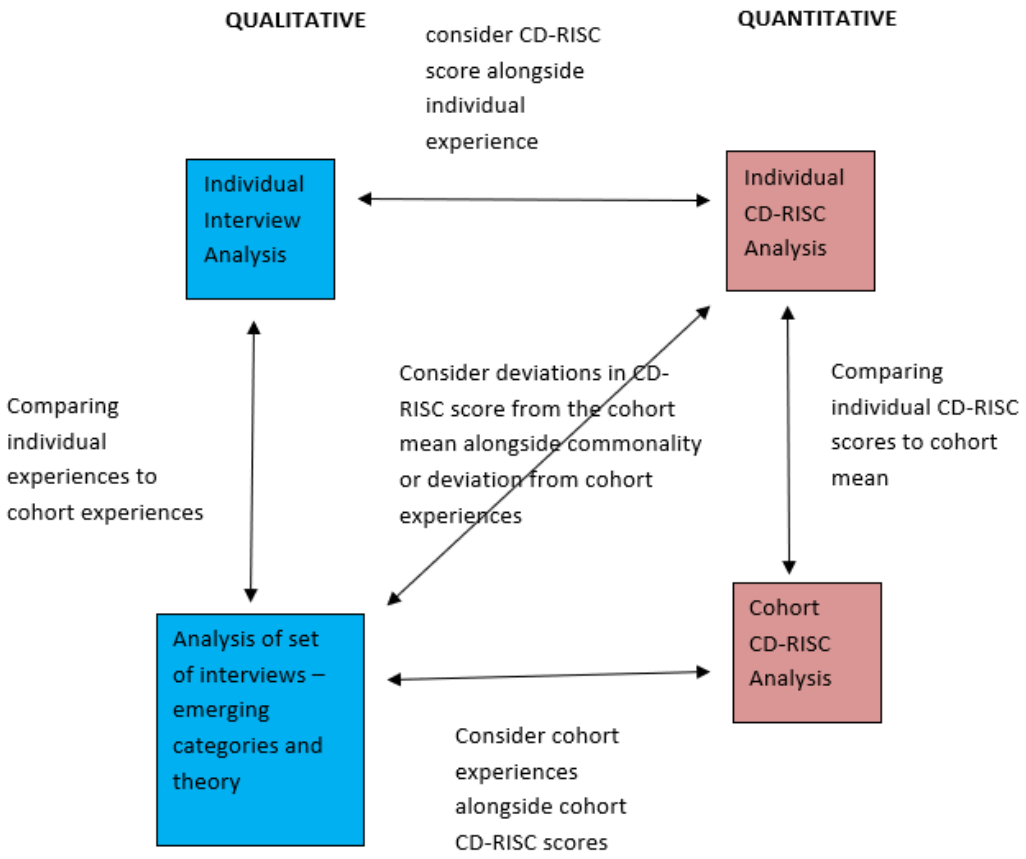
Both the above studies demonstrate how concurrent mixed methods can be used in different ways in grounded theory approaches. The present study used a concurrent mixed-methods constructivist grounded theory approach, where qualitative data was analysed using the principles of grounded theory. Quantitative data was analysed descriptively. It highlights individual resilience trends over time, compares individual resilience to cohort means and tracks the mean cohort resilience score over time.

A key tenet of mixed methods research is how data are mixed (Teddlie and Tashakkori 2009). Individual resilience scores were used to help underpin the experiences of participants following their individual interview at each time period. A low resilience score may help to understand the impact of experiences participants describe, and vice versa for a high resilience score. Tracking individual resilience scores over time and considering them in conjunction with the experiences

participants describe in interviews may help illuminate the significance of experiences. Considering individual resilience scores and interviews against the mean cohort resilience scores may help to understand how an individual's journey over time may be similar or different to the general cohort experience, and what the significance of those similarities or differences might be.

An example of how mixing methods helped to illuminate participants' experiences is a participant who experienced a clinical error between T1 and T2. During the T2 interview it was clear that this participant was upset about the incident. Analysing this alongside their resilience score reinforced the negative impact this had had on resilience. By T3 the participant's resilience score had risen substantially. Analysing this alongside their interviews over time highlighted the importance of support from colleagues in improving resilience. The seeds of this support had been sown in T1 when attention had been paid to building relationships with colleagues. It was by mixing the methods after analysis of each method individually that a deeper understanding began to emerge of the extent of the protective factors that relationships with colleagues provided for this participant. This could be compared to another participant who, for example, did not have such a good relationship with colleagues. By looking at their resilience score over time, comparing it to the cohort mean and to their interviews, the researcher was able to understand the negative impact on resilience of not having a good relationship with colleagues. Owing to the small sample size, the mixing of methods at an individual level was emphasised, as detailed above. A diagram of how the methods were mixed can be seen in figure 4.

Figure 4 Diagram showing how methods were mixed



4.2.5 Rigour in Grounded Theory

There have been many iterations for evaluating the rigour of grounded theory with each iteration of grounded theory. Constructivist Grounded theory can be evaluated across four criteria: credibility, originality, resonance and usefulness (Charmaz 2014). Ensuring that there is rigour across these criteria can go some way to ensuring the process undertaken has been rigorous, and therefore the product of that process (the theory) accurately accounts for participants' experiences.

4.2.5.1 Credibility

Credibility refers to the extent to which the reader believes that analysis of data, and subsequent categories and theory, accurately account for the data (Charmaz and Thornberg 2021). In this study credibility has been ensured following a number of mechanisms.

An example has been given of how one category titled ‘earning your stripes’ was constructed from data. This is presented later in the chapter. An excerpt of a transcript has been given with the subsequent initial coding. Multiple codes have been presented from multiple participants which have become focused codes and contributed to the category. This demonstration of the process from initial coding to category formation helps to assure the reader that the category is grounded in the data. This process is demonstrated later in this chapter.

Within the results section participant quotes have been presented which typify and add richness of experience to the category being described. Often multiple quotes are presented which demonstrate the commonality of experience across participants. This helps to demonstrate that categories can be accounted for within participants’ experiences.

Charmaz and Thornberg (2021) emphasise the importance of reflexivity in the constructivist grounded theory process in order to illuminate preconceptions and understand how hidden beliefs may enter the research process. A section in this chapter deals with the researcher’s own preconceptions, as well as a section at the end of each chapter which is a personal reflection on the content of the chapter. An example has been given later in this chapter of how memos have helped the researcher to reflect on the coding of data alongside their own beliefs and resulted in a category not being pursued as it was judged that it was not sufficiently accounted for in the data, and the researcher’s preconceptions may have played too large a part in constructing the category. This process was carried out at each stage of analysis to make the researcher’s preconceptions explicit and reduce the chance of them erroneously affecting analysis.

4.2.5.2 Originality

Originality has been described as the extent to which research offers new insights or fresh conceptualisation of a problem (Charmaz and Thornberg 2021). In relation to this study, chapter three recognises that socialisation for newly qualified healthcare practitioners can be a turbulent time. This study illuminates this issue specifically in newly qualified paramedics, and it highlights how this emotional turbulence can be largely attributed to uncertainty of a changing identity. In this way, the originality of this study is a deep and fresh conceptualisation of the fundamental issues facing a newly qualified paramedic as they transition into the workforce.

Discussion with the supervisory team for this thesis supported the conceptualisation of the study and the findings, and helped to ensure that outcomes were conceptually sound and based upon participants' experiences.

4.2.5.3 Resonance

Resonance is the assessment of how analysis not only reflects the experiences of participants, but how it helps us to understand experiences of a wider cohort (Charmaz and Thornberg 2021). Charmaz (2014) highlights how paying close attention to credibility and originality improves and helps guarantee resonance and usefulness. During later interviews with participants, the researcher checked out the resonance of developing categories and theory with participants as a means of checking that they resonant with a wide range of participants.

Resonance was also achieved by engaging with the wider academic and professional community. I have presented findings from this study at the international conference EMS2021 to engage paramedics, educators and academics from across Europe. This opportunity demonstrated how delegates were able to identify with the findings of this study in their own practice. I presented a paper based on my findings for peer review for the British Paramedic Journal which was subsequently published (Phillips and Trenoweth 2023).

4.2.5.4 Usefulness

Usefulness is the extent to which the findings of the study help to change policy, practice, or develop new lines of research. This research will be useful for a number of reasons. There is much focus on the transition to professional practice for paramedics within practice, with a focus on attrition. The findings from this study highlight that issues around identity play an important role in emotional turbulence for newly qualified paramedics. This has ramifications for the education of student paramedics around different facets of identity. It has implications for the preceptorship support that ambulance trusts could offer newly qualified paramedics, to help them navigate this process. It highlights an important area for research to help better understand this process and start to work towards interventions to support newly qualified paramedics in their transition to practice.

4.3 SECTION 2: METHODS

4.3.1 Introduction

This section presents the methods used in this mixed-methods study. After giving an overview of the study it will address the ethical considerations of the study and how participants were sampled and recruited. It will explain and justify the longitudinal design that is used. It will then explain how semi-structured interviews were conducted to collect qualitative data, and the Connor-Davidson Resilience Scale (CD-RISC) questionnaire used to collect quantitative data. This is followed by a detailed explanation of how qualitative data was analysed following the constructivist grounded theory framework. This section also includes an exploration of the role and position of the researcher in constructing meaning from participants' experiences.

4.3.2 Overview of methods

This study is a longitudinal (one year) mixed-methods study. There is an emphasis on the qualitative methods, and quantitative and qualitative data were collected concurrently. Data was collected at three time-periods over a one-year period. T1 at the start of the newly qualified paramedic's employment, T2 after six months and T3 after one year. Qualitative data was collected using intensive semi-structured interviews and analysed using a constructivist grounded theory approach. Quantitative data was collected concurrently using the resilience questionnaire CD-RISC and analysed descriptively.

A convenience sample of 18 participants started the study who were newly qualified paramedics at one ambulance trust. Four participants were lost by T3, leaving 14 participants at the end of the study.

4.3.3 Ethical Considerations

Ethics was approved by Health Research Authority on 27th April 2018 (ID: 224086) and by Bournemouth University Research Ethics Panel on 28th June 2018, (ID: 16624).

The South Western Ambulance Service Foundation Trust research and development department confirmed capacity and capability to support the study and acted as sponsors for the study, in line with Health Research Authority requirements.

There were some ethical considerations to consider in conducting this study. The main risk to participants was that during interviews they may recall upsetting or painful memories. To mitigate this the researcher had agreed with the ambulance trust that participants would be given information of their staying well service which could offer support to participants. All participants were given information of the staying well service by the researcher at each interview.

Participants were also made aware that if the researcher thought the participant was at immediate risk to themselves or others then confidentiality would be broken in

order to tell the employing trust about the researcher's concerns. The participant would be informed that this was going to happen. This did not happen with any of the participants in this study.

Participants were informed through the participant information sheet and participant agreement form that they were free to withdraw from the study at any point without penalty. The participant information sheet and the participant agreement sheet can be seen in appendix two and appendix three respectively. However, anonymised data collected up until that point would be included in the study. In order to withdraw from the study a participant could indicate their withdrawal to the researcher via email, telephone call or face-to-face. No participants indicated their intention to withdraw from the study, however there was attrition from the study which is explained in the findings section.

Potential participants were approached at their corporate induction with the ambulance trust. The researcher gave a short presentation about the research and invited anyone who was interested in being a participant to take a participant information sheet and speak to the researcher to find out more about the study and to answer any questions they had about taking part. Those people who were interested in taking part were given a copy of the participant information sheet and a participant agreement form. If they still wished to take part they emailed the participant agreement form back to the researcher and were inducted into the study.

4.3.4 Sampling

A convenience sample was used (Lee-Jen Wu et al. 2014). This is a non-randomised sample where participants are selected based on their ease of access. A single NHS ambulance trust was contacted to approach newly qualified paramedics in their trust. Participants were approached at their corporate induction. Potential participants were given information sheets at the induction and asked to sign and return a consent form by email if they wish to take part in the study.

It is difficult to identify an appropriate sample size in grounded theory at the start of the research. Mason (2010) highlights that sample size should be dictated by the

concept of saturation, but that this is difficult to calculate at the outset. Charmaz (2014) describes how saturation is demonstrated in grounded theory when data no longer adds to new theoretical insights, and no longer adds to core categories. Morse (2000) reflects on the factors to take into account when considering sample size. Some of these factors are how many times each participant is likely to be interviewed, the depth of each interview and the scope of the research question. The more times a participant is interviewed, and the more depth and richness that each participant can provide about their experiences, the fewer participants are required. Also, the narrower the research question fewer participants are needed then if the research question is much more broad. Morse (2000) estimates that if participants are being interviewed two-three times each, then twenty-thirty participants are required (40-90 interviews in total). Mason (2010) undertook a content analysis of 560 PhD thesis, finding that the mean number of interviews used in grounded theory studies was thirty.

An important factor to consider related to sample size, given that this was a longitudinal study, is attrition. For this one-year longitudinal study the attrition is difficult to predict. Young et al. (2006) found an attrition rate ranging from 10% to 32% across different age ranges of New Zealand public in a survey study. O'Farrell et al. (2000) found that 13 out of a sample of 88 participants were lost to follow-up after two years, in their study of alcohol and domestic violence, which represents a 14.7% attrition. In more paramedic-specific studies, Harris et al. (2023) had an 8% attrition rate from their study of mental health risk factors in paramedics, after six months. Wild et al. (2016) carried out a two-year longitudinal study studying risk factors for development of PTSD and depression in UK paramedics. They had a 14.8% attrition rate after two years. These paramedic-specific studies are considered to be more reflective of the cohort in this current study and may give the best indication of potential attrition rates over the one-year study. This is because participants attracted to take part in the study are likely to be newly qualified paramedics who think that this topic is an important topic to study, therefore they may make the effort to remain in the study until its' conclusion.

Taking all of these factors into consideration, it was considered that an appropriate sample size to induct into the study was 18 participants. Using intensive interviewing it was likely that participants would give rich and detailed accounts of their

experiences. Additionally, each participant being interviewed three times would result in a maximum of 54 interviews, which is well into the range suggested by the literature that could reach saturation. If there was a 15%-20% attrition rate at the top estimate, then this would still leave 14 participants in the study, resulting in 42 interviews at the least. Again, this is well within a range that would suggest data saturation could well be reached. Should data saturation not be reached then theoretical sampling could be used to pursue further interviews with participants who the researcher feels would yield additional theoretical data or confirm theoretical codes. In this way, the number of interviews could be increased to the point of data saturation.

Data saturation was achieved during the T3 interviews. This became apparent at a point when initial codes of the T3 interviews supported the developing theory but did not add any new categories or theoretical concepts to it. This recognition of saturation in grounded theory is supported by Urquhart (2013) and Given (2016), where there are increasing instances of the same code but no new codes developed from data. The point where data does not add new categories or add more detail to existing categories is the point at which saturation is achieved (Charmaz 2014). Saunders et al. (2018) draw a distinction between whether saturation indicates that no new insights occur from data, and whether the developed theory has been sufficiently saturated with data to accurately reflect participants' experiences. Both of these factors were reached during the T3 interviews. The remaining T3 interviews were still analysed but it became clear that no new codes were able to be developed and therefore the theory that had emerged had been saturated from the data.

4.3.5 Longitudinal Design

The literature review in chapter three, section one showed that resilience is a dynamic process (Connor and Davidson 2003). It is reasonable to presume that levels of resilience change over time. People may experience different stressors, to which they have varying degrees of coping mechanisms, and different levels of disruption may occur. This dynamic process means that if research was designed to take a snapshot of participants' resilience, then it would not capture the process or

complexity of resilience and of the experiences of newly qualified paramedics. That is, the interaction between stressors and coping, and the re-integration that occurs. Therefore, in order to capture the likely variation in resilience and in the experience of NQPs over time, a longitudinal design was used.

Data collection occurred every six months for one year. This happened as participants started employment with their respective ambulance service (T1), after six months (T2) and after one year (T3). The purpose of the design was to study the process of resilience in and between individuals for a year. It was felt that contacting participants every six months would give enough of a gap for participants to experience adversity, but not so long that they might not be able to recall events that had happened or how they had been feeling.

Evidence presented in the socialisation literature review in chapter three shows that the first six months of employment are particularly turbulent for a newly qualified healthcare professional. For this reason, a one-year longitudinal design seemed appropriate to capture the most turbulent period and the subsequent six months. This is supported by the fact that the evidence and the findings of this study emphasise the social process of socialisation into the workforce which is a process that Devenish et al. (2016) chart over the first year of employment in paramedics.

4.3.6 Connor Davidson Resilience Scale and analysis of quantitative data

Quantitative data were collected using the Connor–Davidson Resilience 25-point Scale (CD-RISC) (Connor & Davidson, 2003). This questionnaire is a self-assessment of resilience. Participants respond to 25 statements on a Likert scale from 0 (not true at all) to 4 (true nearly all of the time). Marked out of 100, a higher score indicates higher resilience and a lower score indicates lower resilience. Examples of items included in this questionnaire are: ‘I have at least one close and secure relationship,’ and ‘When things go wrong sometimes fate or God can help.’ Permission was granted by the authors of the CD-RISC to use the questionnaire for this study. Letter of permission can be seen in appendix four

CD-RISC 25 has a good reliability and validity. It has a high construct validity, with those scoring high on CD-RISC being less likely to develop post-traumatic stress disorder (Mealer et al., 2016) and suicidality (Liu et al., 2014). It has a high test–retest reliability (Connor & Davidson, 2003) and acceptable convergent and divergent validity (Karaırmak, 2010). It has a good internal consistency (Cronbach's alpha = 0.86, where over 0.7 shows good internal consistency) (Kuiper et al. 2019).

In addition to the good psychometric properties of the scale, the CD-RISC questionnaire was used because it was conceptualised on the basis of the resilience theory (Richardson 2002) which was discussed in chapter two and has been used as a framework for understanding resilience in this thesis.

Participants were given time to complete the questionnaire on a computer immediately before the interview took place, without the researcher present. The questionnaire was completed online using the Bristol Online Survey website (Online Surveys 2023). Quantitative data were analysed descriptively using SPSS version 28. The Shapiro–Wilk test of normality was used to establish normal distribution, where a significance value of over 0.05 indicates a normal distribution of data.

4.3.7 Collection of Qualitative Data and Development of the Interview Schedule

Interviews are guided conversations that aim to elicit certain types of information (Lofland and Lofland 1984). Structured interviews are rigid questionnaires, often having a pre-determined set of answers, and the researcher asks the same set of questions to everyone to ensure comparability (Blee and Taylor 2002). Structured interviews do not fit within a constructionism paradigm because the pre-determined answers impose a framework onto participants which is at odds with a social constructed reality, they do not allow the researcher to adequately explore the participants' realities.

Semi-structured interviews are more commonly used in social research. There is an interview guide which has a set of questions but the researcher is allowed more flexibility to explore participants' experiences as they emerge throughout the

interview (Blee and Taylor 2002). The interview guide starts off the conversation, and the researcher is permitted to explore unanticipated topics (Berg 2009). Indeed, in a grounded theory approach the researcher is encouraged to start by asking broad, open questions allowing the participant to give their experience, before focussing questions to elicit detailed responses in the topic of study (Charmaz 2014). In the present study the opening question was '*Tell me about your experiences of being a paramedic at this point'.* This was a broad opening question that enabled participants to start talking openly and freely about their experience. This enabled information to be collected around research question one:

> What are the experiences of newly qualified paramedics as they transition from student to paramedic?

Subsequent questions were more specific to elicit information about positive and negative experiences, although still open enough so that participants could talk about experiences that were important to them: *'Can you describe a day/incident that went really well"* and then *'can you describe a day/incident that did not go well'*. (Interview schedule and questions can be seen in appendix five). This focussed the questioning on participants' experiences in relation to stressors and coping, and aimed to collect information around research question two:

> What factors are important in affecting the resilience of newly qualified paramedics?

Subsequent interviews (T2 and T3) followed the same broad interview schedule. However, there was some personalisation of the questions and topics explored as a result of experiences of individual participants in the previous interview. For example, if a participant had mentioned a particularly difficult experience in one interview, the researcher would follow up on that in the subsequent interview. Additionally, as analysis of one set of interviews occurred before the next set of interviews were undertaken, the interviewer was able to start to check and test out conceptual ideas that were developed across multiple participants. This also negated the need for theoretical sampling, which is a way of undertaking further interviews with a targeted sample with the aim of advancing theoretical understanding (Charmaz 2014). However, because this research interviewed each participant three times then it

allows for inductive understanding of developing categories and gave the ability to target subsequent interviews with the aim of advancing theoretical understanding.

Birks and Mills (2015) highlight that common practice is to view conducting interviews face-to-face as important in grounded theory. They point towards the importance of being able to read non-verbal clues, body language, gestures, facial expressions and that it provides a great advantage for the researcher. Jane et al. (2006) show how important relationship-building between researcher and participants is. They suggest that in constructivist grounded theory the researcher and participant co-construct meaning and knowledge that is grounded in participants' experiences and views (Mills et al. 2006). Although much of the literature on constructivist grounded theory does not explicitly dictate that face-to-face interviews are used, the emphasis on relationship-building and information gained through direct observation of participants (Mills et al. 2006; Birks and Mills 2015) strongly suggests that this is desirable.

Ward et al. (2015) studied participants' views of telephone interviews in a grounded theory study. Ethical reasons precluded them from being able to be present to conduct face-to-face interviews. They found that telephone interviews gave a number of advantages to participants: making it easier to build rapport, making it easier to disclose sensitive information without feeling judged. They conclude that telephone interviews should not automatically be viewed as a second-rate way to conduct interviews. However, Berg (2009) describes how novice interviewers are often surprised that, given a good rapport, participants do not hold back when asked sensitive or personal information during face-to-face interviews.

The present study undertake face-to-face interviews, and this bestowed many advantages over telephone and visual/audio interviewing. One advantage in building rapport is the ease with which one can undertake small talk. Berg (2009) developed the '10 commandments of interviewing', number one is that spending a few minutes making small talk puts the participants at ease and builds rapport, which will improve the quality of the interview (Mills et al. 2006). Charmaz (2014) identifies how it is important that the researchers identify implicit meanings in spoken words. Being face-to-face enables the researcher to see facial expressions and body language that may give a different contextual meaning to the spoken words and enable the

researcher to clarify meaning. An example of this was one participant robustly saying that a negative interaction with a colleague “Doesn’t bother me”. However, their body language and demeanour indicated the opposite of that, therefore the researcher was able to explore this participant’s feelings more fully as a result of being face-to-face.

Subsequent interviews build on analysis of previous interviews. They explore concepts further to consider their plausibility and centrality. The process is iterative and inductive.

4.3.8 Analysis of qualitative data

4.3.8.1 Initial Coding

Initial coding involves going through the transcripts at line-by-line (or point-by-point) level and assigning each line a code based upon its’ meaning (Charmaz and Thornberg 2021). Charmaz (2014) advocates focussing on actions and making codes action-based, which makes them less descriptive and is less likely to artificially label participants. It also helps to start the analytical process. Some incidents can have multiple codes. Line-by-line coding enables the researcher to keep close to the data, and in order to support this it is recommended that lines are coded with a focus on that line only. At times a line does not contain enough data to code, so in this instance the researcher used point-by-point coding to ascertain more meaningful and representative codes (Charmaz 2014).

Once all of the interviews for the time-period were transcribed, initial coding took place. All interviews were transcribed verbatim and initial coding undertaken before the next set of interviews were conducted (IE all T1 interviews were coded before undertaking the T2 interviews). This approach also enabled developing themes, ideas and concepts to be explored in the subsequent interview with the individual, and across individuals, as a way of checking that ideas were grounded in participants’ experiences. This helped to ensure credibility of the subsequent themes.

An example of an interview transcript with its' initial coding can be seen in appendix seven.

4.3.8.2 Focused Coding

Focussed coding is the process of identifying initial codes that appear frequently or have particular significance within the data, perhaps finding groups of codes that can be synthesised into more analytical and conceptual ideas. This is done by studying initial codes and considering what they say about the data, what they reveal about the data, and what might be implicit with the data. By comparing codes with codes one is able to start to understand which codes might best represent an important analytical point, and these can be developed into tentative categories to move the analysis forward (Charmaz 2014).

At each stage of focussed coding it is important to ensure that the analysis accurately represents the data and accurately accounts for the data. This process of initial and focussed coding helps to minimise the researcher's biases in analysing data.

4.3.8.3 Theoretical Coding

Theoretical codes help to conceptualise data and focussed codes. They may both identify how focussed codes are related and move analysis in a theoretical, theory forming direction. They do not replace focussed codes but underpin and show relationships between them.

There is potential tension in theoretical coding between the emergence of theories and the application of theories, and so Charmaz (2014) advises interrogating yourself about how well theoretical codes interpret the data and ensuring that theoretical codes enhance the telling of the analytical story rather than being rigidly applied to it.

Where existing theoretical codes have been applied to the data, the author has constantly compared the theoretical codes, focussed and initial codes to the data to ensure that theoretical codes accurately represent the data.

An example of theoretical coding in this research is linking categories together through the lens of identity (identified in the following findings chapter). All categories have an effect on, or are affected by, identity. That is, the emergent theory is built around the core themes professional, social and personal identity, and all categories are linked by that.

4.3.8.4 Memo Writing

Memo writing is an informal process capturing the researcher's thoughts about the data and comparisons between data. Memo writing has been described as pivitol in grounded theory to understand relationships between categories and to raise the analytical level of coding (Bryant and Charmaz 2019). There are many different uses and ways of conducting memo writing, and different aspects of memo-writing can be useful at different stages during the analytical process (Charmaz 2014).

Notes were taken during each interview including thoughts that occurred during the interview, and links to other interviews. Once initial codes had been raised then memos were written on hunches about grouping those codes into focussed codes. This helps to raise the analytical level of analysis and helps to refine thinking. Memos were revisited at each subsequent interviews with participants. This helped in asking questions to enrich the codes, and ensure that the codes were a true reflection of the data. Montgomery and Bailey (2007) identify that memo writing is critical for moving analysis in an analytical and theoretical direction, and towards theory generation.

Memos were written about each participant. This included my inclinations about their personalities, what drove them, anything interesting that became apparent about them. This helps to get a sense of the individual and to view experiences from their frame of reference.

Memo writing is also used when the author is unsure of how to proceed and seems to have ‘writers block’. It helps to free the mind and start the cognitive process again towards analysing and conceptualising ideas (Bryant and Charmaz 2019).

The example of the memo in table 5 shows how memo-ing helped raise the focussed codes around ‘earning your stripes’ to be more theoretical around the concept of identity. The memo helped the researcher to start to understand the meaning that underpinned participants’ experiences.

Table 5 Example memo - earning your stripes

Memo – Earning Your Stripes
It is interesting that despite three years of university education, including many hours of placement, that it was not until participants proved to themselves that they could deal with an event like this on their own that they really felt like a paramedic. Why is this when they have been graded in practice for three years and demonstrated competency? Is this to do with confidence/self-belief? Do these terms fall under the umbrella of self-efficacy? Looking at self-efficacy it appears that participants are describing aspects of it. Self-belief, testing themselves to see if they can perform at that level. Some participants (MT77 in particular) talk about wanting to be tested with time-critical jobs. Maybe this is part of having self-belief, self-efficacy and want to test it even more. They are focussed on the *process* more than the *outcome*. Maybe this isn’t egotistical, maybe it is about self-efficacy, and this is a crucial part of being a HCP. Is self-efficacy linked to motivation to perform in a role and to identity of paramedics? Many of the participants cite a cardiac arrest as a core role of the paramedic. This seems like a skewed view of paramedic practice, when the vast majority of calls are not life-threatening. So there must be something about these time-critical calls that goes deep. A lot of them talk about ‘feeling like a proper paramedic’. Maybe it is more fundamentally about identity.

4.3.8.5 Diagramming

Diagrams were used to help to understand and show relationships between categories. There were many iterations of diagrams that showed the developing theory within this study. The figures below show iterations of the theory diagram after each set of interviews, and how each set of interviews added to the development of the theory. Diagrams and memos used together helped to understand the relationship between categories and the experiences of participants.

Figure 5 shows an early T1 diagram. During the interviews it became clear that participants felt that they needed to undertake certain types of calls in order to prove to themselves that they could do the role, and to prove to colleagues that they could do it. Figure 6 shows how, after the T2 interviews, categories had been added that impacted upon the two main categories of 'accepted by colleagues' and 'prove competence to yourself' that were formed during T1. Eventually, these two main categories were conceptualised into issues around identity and the main theory was conceptualised around the core themes of identity and how the categories interlinked around the issue of identity.

Figure 5 An early T1 diagram

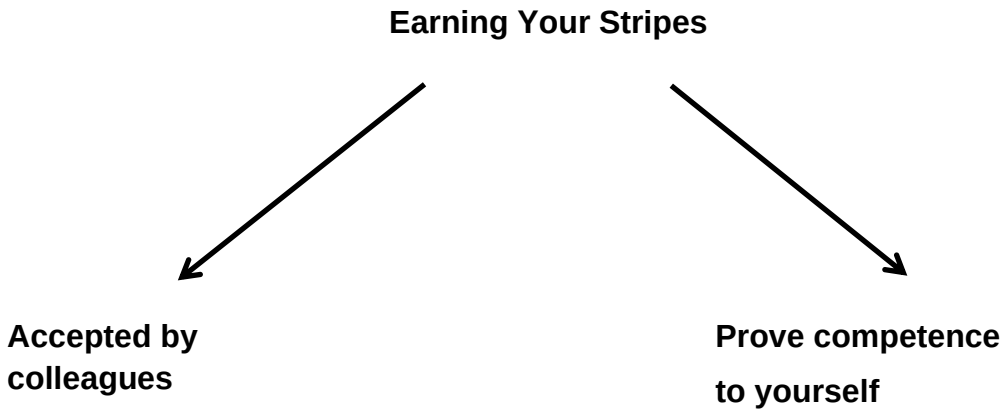
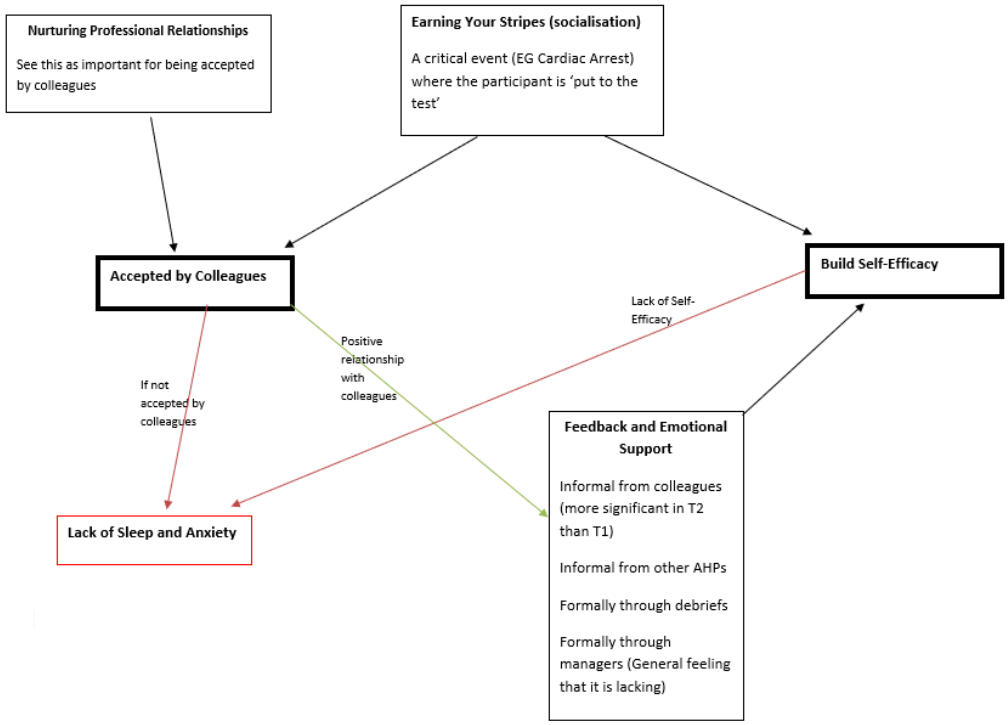


Figure 6 Diagram after T2



4.3.9 Preconceptions and Positionality of the Researcher

As a paramedic the researcher came into this research with their own experience of resilience related to paramedic practice. Additionally, their interest in the resilience of paramedics meant that the researcher had knowledge of the literature about resilience in paramedics and there was a familiarity with the topic. These factors could cause preconceptions and biases when dealing with data, and could result in preconceived ideas, theories and categories being imposed on the data, rather than constructing these ideas and theories from the data. A key aspect of grounded theory is that the developing theory is grounded in participants experiences. That is, it is grounded in and accounted for within data (Charmaz 2014). Original grounded theory viewed this as problematic and suggested that researchers should have no preconceived knowledge or ideas about the topic (Glaser and Strauss 1967).

However, constructivist grounded theory places the researcher firmly within the analysis of the research and identifies how participants and researchers co-construct meaning (Charmaz 2014). There are strategies that can be, and were, used to ensure that codes, categories and theories were grounded in the data and reflected participants' experiences, not a result of preconceived ideas and misconceptions of the researcher. To achieve this the researcher needs to be aware of potential preconceptions and be open to exploring all substantive concepts that appear in the data (Holton 2009), and remaining open-minded about data (Charmaz 2014)

4.3.9.1 Awareness of Preconceptions

Chapter one presents the background of the researcher as a paramedic, educator and researcher. It identifies the researcher as an insider (as a paramedic) as well as an outsider (as a researcher). This unique position enabled the researcher to have insight into participants' experiences and to decode unique language, however careful attention needed to be paid to remaining as an outsider. That is, ensuring that meaning was clarified with participants. There were many times during participant interviews that the researcher asked the participant to clarify the meaning of what they were saying, or to clarify terminology, even though the researcher felt they understood what the participant meant because of their experience as a paramedic. This reduced the likelihood of forcing preconceptions and the researcher's own experiences into the experiences of participants.

Chapter one helped to draw out explicit thoughts and feelings that the researcher had as a result of their paramedic experience. Making these explicit enabled the researcher to reflect upon developing codes, categories and theories and understand the extent to which preconceptions may have shaped them, and the extent to which they are the result of co-constructing from the data. Memos around developing codes and categories helped to explore this.

4.3.9.2 Ensuring meaning is kept close to the data

Diligent coding can help to ensure that emergent codes, categories and theories are grounded in data. During initial coding focusing on each line (or point) separately and in isolation helps to keep the codes grounded in data. During focussed coding and in raising the theoretical level of categories, constantly comparing these aspects to the data helps to assure the researcher that they are a result of the participants' experiences rather than erroneous misconceptions from the researcher.

There is an example of a category that was developed and subsequently dropped because it was not well grounded in data and the researcher felt that there were too many preconceptions in building the category. This category was around the motivation of participants to become paramedics. It was built around a scale from altruistic paramedics at one end, to egoistic paramedics at the other. Altruistic paramedics were focussed on delivering good quality patient care. Egoistic paramedics derived satisfaction from how being a paramedic made them feel. The below memo (table 6) was written to explicitly examine the researcher's preconceptions about this topic. Subsequently, data was re-explored, with the help of supervisors who are experienced researchers, to examine the extent to which the category was grounded in the data and it was felt that the category did not accurately account for participants' experiences and was subsequently discarded. This process can be described as bracketing, where preconceptions are made explicit and the researcher examines their engagement with the data against these preconceptions during the analysis phase (Tufford and Newman 2012). This demonstrates how this reflective process can help to illuminate and mitigate preconceptions infiltrating the data.

Table 6 Memo about motivation to become a paramedic

MEMO *My feelings about the culture of the ambulance service and differences in approaches to the job*
I have always been interested in people. In what motivates them to behave the way they behave, think the way they think. Starting training as a paramedic I (somewhat naively) believed that all healthcare staff would be motivated by helping people above anything else. I started training as a paramedic in 2005 and started working in a metropolitan ambulance service in 2006. There was a distinctive culture within the large metropolitan ambulance service. I think that in order to try to fit into the culture I adopted some of the behaviours that I saw. The main thing was that it was 'cool' to be quite blasé about patient centred care. It wasn't cool to be excited about using skills, about attending 'big' jobs or to identify that you had done something well. This would cause you to be 'shot down' – no-one likes the tallest sunflower. *It was until I moved ambulance services that I realised that this was quite a toxic culture, and that I had subconsciously and unknowingly been drawn into it, away from my very strong core values. I look back on my time in that ambulance service and have reassessed the role models that I was striving to be like. I wanted to be like the paramedics who were very knowledgeable and took everything in their stride, didn't need advice from anyone and nothing seemed to bother them. The kind of people I should've been looking up to were those with strong values around patient care, those who were willing to talk to colleagues about decisions and reflect on their practice. I certainly came across these paramedics.* *I moved ambulance services to a much more rural service. At first the culture was really refreshing, people who were seemingly really passionate about the job, not acting all blasé because it was cool. However, before long I started to get really irritated because I realised that there was a culture that was just as opposed to my values as the other ambulance service, albeit in a different way. Everybody seemed to be really 'into' the job. They lived, breathed and*

slept it. Their social media was full of ambulance-related things, all their friends were in the ambulance service and they didn't seem to be able to talk about anything else. What I felt was that many paramedics in this service weren't in the role because they had strong values around patient care, they were in the role because getting to use skills made them feel important, the patient was almost irrelevant. Infact, the sicker the patient the better because it meant they could use some 'sexy' skills and make themselves feel good. The outcome to the patient wasn't important in their sense of achievement. This attitude really started to annoy me over time. It culminated in a particular situation that typifies the issue I had with this:

A friend who was a paramedic attended a patient who was living in a caravan. He had set his caravan on fire whilst he was in it in an attempted suicide. He was pulled out of the caravan, alive, but with severe burns and semi-conscious. It was a difficult job where they were required to manage his airway, gain intravenous access and administer fluid, manage his pain, all whilst he was deteriorating. My friend was first on scene on her own, and backed up by two crews. One crew member was a manager. Fortunately the patient survived, but was now homeless and had a long road to recovery, on top of his existing mental health conditions. My friend was upset by this job, it was an emotional job for so many reasons and she felt really sorry for the patient. I was taking over shift from her a week or so later and we walked past the manager's office who had attended that patient. He said "are you OK after that job?" I thought, oh great, he's taking an interest in her welfare. My friend started to say that she was feeling a bit emotional about it when she was abruptly cut off and the manager said (with a smile on his face) "it was a cool job wasn't it". I had to ask him which particular part of the job he thought was 'cool'. The bit where someone tried to commit suicide? The bit where he failed and only succeeded in making himself homeless? The fact he had severe, life-changing injuries and needed months and months of rehab? Of course, the manager meant that they got to do 'sexy' skills that made him feel really good about himself. This was the biggest example of the most blatant disparity between my values and other paramedics.

I made a few friends whilst working in the ambulance service, but not very many. Sometimes I would sit in the ambulance car during my lunch break rather than go into the station because there were a few who I didn't have any respect for because our values were so different fundamentally. I may be way over the top here, and have since realised that maybe people are acting that way as a coping mechanism to the horrible things we can see. I probably took it too far, but that was how I felt. As an educator of paramedics I feel exactly the same. I respect those students who focus on the patient and their care. I struggle with students who want to drive fast and do cool skills to make themselves feel good.

It is perhaps no surprise that issues around motivation to be a paramedic has come up as a topic in my analysis. Does the data account for this??

Each chapter contains a reflective piece at the end which examines the researchers position within the research. This, again, helps to make preconceptions explicit and assure the reader that these were mitigated as much as possible.

4.3.10 Summary

This chapter has described the aims, research questions, methodology and methods of the study. The philosophical underpinning to this study was social constructionism. This emphasised the social, cultural and historical influences of a newly qualified paramedic's experiences, and the social nature of how people experience the world. The principles of constructivist grounded theory were used to collect and analyse qualitative data. Quantitative data was collected concurrently using the CD-RISC questionnaire. This was a longitudinal design which collected data at three time-points over the first year of the newly qualified paramedic's employment. The chapter has described how data was collected and analysed and assured the reader how rigour has been ensured in qualitative data by considering the issues of originality, credibility, resonance, and usefulness. The next chapter will present the findings of the study.

CHAPTER 5: Findings

5.1 Introduction

This chapter presents the findings from this mixed-methods study. This findings chapter is split into four sections.

Section one will firstly present demographic data. This will give an overview of the participants that took part in this study and will identify and explain participants' attrition from the study.

Section two will describe the theory that was constructed. It will firstly explain the categories that were constructed from participants' experiences using quotes from interviews to underpin the categories. The section will then describe the constructed theory, explaining how the categories are linked through participants' experiences of navigating new identities: Professional identity, social identity and personal identity.

Section three will present the descriptive analysis of the quantitative findings based on the Connor-Davidson Resilience Scale 25 (CD-RISC) questionnaire. Findings for the group as a whole will be presented, as will findings for individuals over each time sampling period.

Section four will present illustrative examples of three participants to embellish understanding of the main theory. Individual case studies will also give an understanding of some of the different navigations through the transition period. Qualitative and quantitative data will be mixed in each case study to illuminate the experiences of the individuals and the effects of the experiences on their resilience.

The chapter will end with a personal reflection on the chapter.

5.2 SECTION 1: Demographic Data

5.2.1 Demographic Data

Self-reported demographic data can be seen in table 7. As an overview, there were 18 participants at the start of the study, eight males and ten females. There were 12 participants that were aged 30 and under. There were 16 participants that identified

as British, 11 were single. There was one participant that reported having a disability. Demographic data was not identified by participants as having an important effect on their experiences.

Table 7 Demographic Characteristics (n=18)

Demographic category	Number of participants (%)
Gender	
Male	8 (44.44)
Female	10 (55.56)
Age (Years)	
21–25	7 (38.89)
26–30	5 (27.77)
31–35	3 (16.67)
> 35	3 (16.67)
Marital status	
Single	11 (61.11)
Co-habiting	6 (33.33)
Separated	1 (5.56)
Ethnicity	
White British	16 (88.89)
Other	2 (11.11)
Disability	
No	17 (94.44)
Yes	1 (5.56)

5.2.2 Attrition

After T1 there was an attrition of four participants from the study. One participant (PD85) left the ambulance service to work in another area of the NHS, this meant they were excluded from the study at this point because they were no longer employed by the ambulance service. The other three participants (FW99, DN53, CN34) did not respond to emails to organise further data collection for T2 and T3, despite follow-up emails. This left 14 participants in the study from T2 and these participants remained until the end of the study.

5.3 SECTION 2: Constructing the Theory

5.3.1 Categories

This section will firstly outline and explain the four categories that were constructed and how they account for experiences of participants. They are: “Earning Your Stripes”, Nurturing Professional Relationships, Receiving Valued and Confirmatory Feedback and Receiving Physical and Emotional Support. At the end of the explanation for each category, a diagram will be presented which demonstrates how the categories contributed to the overall theory.

5.3.1.1 “Earning Your Stripes”

The category “Earning Your Stripes” was developed as an In-Vivo code because it was a phrase used by multiple participants to describe their experiences related to this category. It was also significant given the militarised culture of the ambulance service, which was discussed in chapter two, that multiple participants should use this military phraseology to describe their experience. This category was developed mostly during the T1 interviews and seemed to capture the over-riding concerns of participants which accounted for significant emotional turbulence. This category formed the findings presented in a peer reviewed paper published in the British

Paramedic Journal by the researcher (Phillips and Trenoweth 2023) (See appendix one).

Participants identified that attending to a critically unwell patient, particularly cardiac arrests, was a key constituent of the role of the paramedic. As such, they placed a lot of weight on the ability to cope with this kind of callout, which will be referred to as a catalyst event because of the mediating role that this sort of callout had on how participants viewed themselves as paramedics. Thus, they described this as a rite of passage, something that they had to go through, and it had a direct effect on how they felt about being a paramedic:

> *"your cardiac arrest is one that is most associated with paramedics, so knowing that I can do that was quite a nice moment. I'd earned my stripes. I can do this." (JT67, T1. CD-RISC Score: 84)*

Before attending a catalyst event participants described a lot of self-doubt that they were able to perform adequately as a paramedic:

> *"I do worry about going to my first cardiac arrest as a paramedic. That is my biggest fear until I get that job. So I don't know what's going to happen. I think that that is my biggest worry" (SP55, T1. CD-RISC Score: 84)*

However, participants who had attended to this type of callout described an increase in self-efficacy and confidence, and a feeling that they now felt like a legitimate paramedic. They started to feel like a bona fide paramedic, and attending to this sort of callout was the catalyst for this happening:

> *"it is one of the biggest jobs a paramedic attends to and sort of what a paramedic is expected to go to, that kind of emergency and knowing that I'm able to achieve what I need to achieve as a newly qualified paramedic it was a really big boost of confidence." (JT67, T1. CD-RISC Score: 84)*

> *[talking about a patient who was critically unwell that they managed] "Well it made me feel like 'yeah I actually can be a paramedic, I'm not so bad'" (PD85, T1. CD-RISC Score: 88)*

Conversely, for those participants that had not attended a callout of this nature, the self-doubt remained. There was an emotional vulnerability rising from this self-doubt that manifested as anxiety and sleep disturbance:

> *"I've still not attended or run a cardiac arrest on my own. That scares the life out of me, absolutely. And I guess when I think of the anxiety and the panic, that's what drives it." (RN21, T1. CD-RISC Score: 58)*

> *"Well, I never sleep well. Never sleep well. And, you know, you wake up a couple of hours before your alarm goes off. And you know, or you take a long time to get sleep and things like that" (FH35, T1. CD-RISC Score: 76)*

The quantitative data reveals that participant RN21 (above) had the lowest CD-RISC score at T1, indicating that the emotional turbulence that they were describing as a result of not attending a cardiac arrest may be having a detrimental effect on resilience.

It was difficult for them to identify as a paramedic when they were so fundamentally unsure if they were able to perform what they perceived to be the key facets of the role. There is also an issue here about role identity. Participants overwhelmingly identified that attending to high acuity callouts was the key facet and identifier of the paramedic role. However, looking at the role more objectively, particularly in relation to chapter two exploring the context of the ambulance service, one might surmise that the role of the paramedic has changed to a point where attending to high acuity callouts is a minor aspect of the role. However, participants felt that if they could perform well in high-acuity callouts then they could manage any situation they faced.

Attending a catalyst event as a newly qualified paramedic also had an effect on participants' developing social identity. Attending to a catalyst event not only affected how participants viewed themselves, it also affected how they felt they were viewed by colleagues. Participants felt that following a catalyst event they had gained the respect and approval of their ambulance colleagues. This process describes how going through this rite of passage can essentially make the participants 'one of the group'. One participant highlights how colleagues' attitudes changed towards her after they attended a child who suffered a cardiac arrest:

> *"And all of a sudden when I worked with other people their attitudes changed. It sounds horrible that it took a baby to die to gain a bit of respect, which is horrible isn't it." (BN54, T1. CD-RISC Score: 71)*

Participants indicated that until they had attended a catalyst event and they had 'earned their stripes', they reported feeling like they were not a part of the group and colleagues would act differently towards them than a more established member of the group. One participant reflected on how they were treated before attending a cardiac arrest and how they were treated subsequently, as a bona fide member of the group, which typifies many participants' experiences:

> *"when you're new, people kind of just ignore you. And now everyone's like chatting to you more like, oh, how's your day going? They kind of include you, which is quite nice" (BE47, T1. CD-RISC Score: 77)*

Some participants had experiences with colleagues that stopped them from being accepted into the group, and that colleagues used these catalyst events to put their work under a microscope and look for mistakes. One participant had a disagreement with another paramedic which escalated and seemingly resulted in the established group making work-life very difficult for the participant and demonstrates typical out-group behaviour:

> *"But they are watching me and waiting for me to make a mistake. That was really stressful, really stressful. I also had other ECAs [Emergency Care Assistants] refuse to do shifts with me, which is also quite stressful because that reaffirms to other people that I'm a really horrible person" (PD85, T1. CD-RISC Score 88)*

Another participant acknowledged the expectation that they go through this rite of passage and demonstrate in-group behaviour in order to be accepted by colleagues but fundamentally rejected the notion of it. They did not accept that they should have to prove themselves to their colleagues in this way.

> *"There's enough pressure on my shoulders, generally with the job, it's quite a pressured job to have to prove myself to my crewmates through another shift" (CH32, T1. CD-RISC Score: 60)*

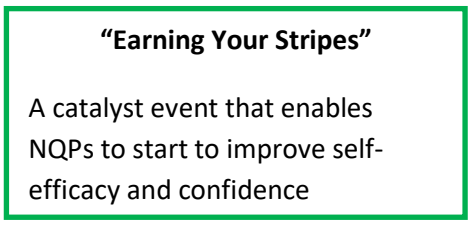
When faced with a series of difficult interactions with colleagues, this participant was not willing to go against their values just to be validated and accepted by the established group.

> *"Like I'm not here to make enemies. But not here so everyone can come around my house for a cup of tea every day." (CH32, T1. CD-RISC Score: 60)*

> *"But if someone introduced themselves to me like that, that kind of rudely, I would say inappropriately to be honest. Just put me on the wrong foot completely to start with and I just lost all respect for them. It was clear that the way they spoke to me meant they had zero respect for me from the start either." (CH32, T1. CD-RISC Score: 60)*

In summary, the in-vivo category "Earning Your Stripes" refers to a rite of passage that participants attend to a critically unwell patient, termed a catalyst event. Those that successfully navigate this event reported feeling greater self-efficacy and confidence. They also reported feeling like they were accepted into the fold by colleagues. However, those that did not attend a catalyst event still felt emotional vulnerability that manifested as feelings of anxiety and sleep disturbances. Figure 7 shows this category as a diagram. Subsequent categories will be added to this diagram to show how the theory was constructed.

Figure 7 "Earning Your Stripes" Category in Constructed Theory



5.3.1.2 Nurturing Professional Relationships

Throughout T1 and T2, there was an overt focus on participants nurturing professional relationships which helped them to be accepted by colleagues, thus helping to form their social identity.

At T2 many participants started to talk about their relationships with colleagues. Some participants consciously nurtured these relationships at T1, seeing the time and effort invested in this as worthwhile:

> *"I think it being a new station and friendships developing but not very strong at the moment. But they are quickly developing, there's lots of social events. Um, I'm keen to invest in that for the next few months." (LO94, T1. CD-RISC Score: 85)*

It also seemed important to participants that they were liked by colleagues:

> *"They've worked with me already, um, and I would hope in the next few weeks I would be able to see that people like working with me." (RN21, T1. CD-RISC Score: 58)*

For other participants there seemed to be a process, between T1 and T2, of fitting in. The extracts from T1 and T2 of BE47 below show the difference between how they did not feel they fitted in at T1, but by T2 they felt like they did. This feeling of fitting in has numerous effects; this particular participant felt at ease and was no longer nervous when going to work:

> *"When I first qualified I was really nervous coming to work, I'm not included in conversations" (BE47, T1. CD-RISC Score: 77)*

> *"People treat me differently now I'm not as new, and that makes you feel more confident […] So for example, if I'm working with an ECA who I know quite well, and they, they're like, confident in me, then I'm like, really at ease. And I don't like stress about, like my decision making or judging what I'm doing" (BE47, T2. CD-RISC Score: 91)*

“Like when you're in a good mood and like you're having a nice chat with people, and you feel included and it makes, yeah, it makes you feel good about coming to work. Like, you don't feel as nervous.” (BE47, T2. CD-RISC Score: 91)

As mentioned above, having nurtured professional relationships, and been accepted by colleagues, it made work a much more enjoyable environment for participants:

[referring to being friendly with colleagues] “I think it is really important. It's nice when you can you always see the same people and you get to know them. You can have a chat and it's a bit more friendly at work. I like that it's something to look forward to” (GD15, T2. CD-RISC Score: 74)

By T2, most participants viewed their relationships with colleagues as positive. One participant, however, was having a much more negative experience through his interactions with colleagues. As demonstrated above, many other participants were trying to nurture relationships because they felt it was important for them to ‘fit in’, whereas CH32 seemed not to prioritise relationships with colleagues in the same way:

[reflecting on a difference of opinion with one colleague who was an unqualified but experienced member of staff] “I'm not here. Like I'm not here to make enemies. But not here for everyone to come around my house for a cup of tea every day. Yeah. No, I'm not going to get on with everyone.” (CH32, T2. CD-RISC Score: 57)

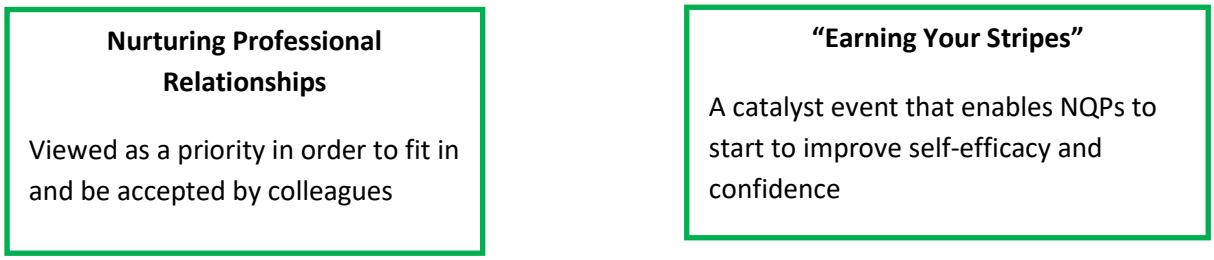
There was a noticeable over-arching negativity towards their interactions with colleagues that became even more evident in contrast to other participants. For example, some participants were prioritising developing friendships with colleagues:

“I think it being a new station and friendships developing but not very strong at the moment. But they are quickly developing, there's lots of social events. Um,

I'm keen to invest in that for the next few months." (LO94, T1. CD-RISC Score: 85)

In summary, this category describes how, from early in the NQP period, many participants saw that professional relationships with colleagues were important. Nurturing these relationships helped participants to fit in with colleagues and changed the way that they felt colleagues interacted with them for the better. Figure 8 shows how this category contributes to the developing theory.

Figure 8 Nurturing Professional Relationships in Constructed Theory



5.3.1.3 Receiving Valued and Confirmatory Feedback

Feedback on clinical performance was important to participants. When they received feedback they generally found that this improved self-efficacy. Participants reported receiving feedback from three main sources: colleagues, through debriefs, and formal NQP reviews.

5.3.1.3.1 Feedback from Colleagues

Participants saw colleagues as an important source of feedback which can build self-efficacy. There are numerous examples of colleagues reassuring participants that they had done the right thing. This is not in-depth feedback or an unpicking of the different facets of their performance, merely a comment or two to the participant that has had an important effect on their self-efficacy:

“if I start to have a good couple of jobs and someone says to me ‘yeah, you did that really well’, um, you know, yeah, I know I’ve done well in that” (AP25, T1. CD-RISC Score: 59)

“maybe it is a bit of someone to say ‘do you know, you actually did that quite well’ like just to reinforce it a little bit” (AP25, T1. CD-RISC Score: 59)

“I handed over the patient to ED and my mentor said to me "that was absolutely what should've happened". It was perfect” (FH35, T1. CD-RISC Score: 76)

“To get a nice compliment from the parents [of a paediatric patient that they attended] and the crew [colleagues who subsequently attended to the patient] was really nice, it built my confidence” (BE47, T2. CD-RISC Score: 91)

Sometimes even just some general indication that the colleague thought they did ok during the shift was enough:

“But you also get more informal feedback like "Thanks for a great shift". And you know that they mean it.” (RN21, T1. CD-RISC Score: 58)

5.3.1.3.2 Debriefing

Sometimes feedback happened in more formal ways such as debriefs. Here, the term ‘informal debrief’ is used to describe an instance where clinicians involved in a case get together in an impromptu manner after the call to discuss it. I have used the term ‘formal debrief’ where there is a structured debrief led by a manager or senior clinician.

In general participants seemed to find debriefs helpful:

“I went to a stabbing, quite severe stabbing not long ago. And that to be honest, I had a really good debrief on that one. We all had a chat. We all said, Well, you know what everyone's done and that helped.” (GD15, T2. CD-RISC Score: 74)

“but also the after debrief if you like where you both say what went well and what went badly. It's amazing just the influence that a bit of feedback from anything, whether that's positive or negative, or constructive. It just has big implications. And particularly how you would approach that next time with what you have learned from that one.” (LO94, T1. CD-RISC Score: 85)

Some participants point to the fact that informal/impromptu debriefs can help to emotionally process what has happened and offer emotional support:

[talking about wanting to talk to colleagues about the outcome of a difficult call]: “but actually, he was like, look, we've all felt how you're feeling. Do not panic. It's perfectly natural. And you will probably have a feeling for years. You know, it takes quite a while to wear off. And he was, yeah, he was quite good about it.” (FH35, T2. CD-RISC Score: 77)

Participants highlight that formal feedback can be focussed on the technical skills which is helpful in reflecting:

“with the formal ones is more about like the skills you could have done. Like why HART did this? Why HART did that? So they explained it quite well, I think. Whereas like, with your other crewmates, it's more of a casual chat about feelings.” (BE47, T2. CD-RISC Score: 91)

Another participant demonstrates how they desire a debrief on technical skills to reassure them that they have done the right thing:

“The one main thing I'm worried about is if I've done the right thing” (FH35, T2. CD-RISC Score: 77)

5.3.1.3.3 Formal NQP reviews

Another type of feedback that participants wanted was when they had their scheduled 6- and 9-month Newly Qualified Paramedic reviews with their manager. Participants expected that these sessions would be used to reflect on their clinical skills and management of patients, but in reality they found that they were based soley on targets. They felt this had little to do with how well they were performing as a paramedic, rather there was a focus on what they considered to be trivial targets (such as whether participants were spending too long on scene, too long at hospital after conveying a patient, whether their paperwork was completed correctly). Their role identity was incompatible with this view of the role, therefore it did not support their evolving professional identity at all.

> *"I think any paramedic goes crazy with all these time targets. One time I got an email from my OO [manager] saying that my times at hospital were terrible" (GD15, T2. CD-RISC Score: 74)*

> *"And I found that it really wasn't based on my clinical skills at all, is more just on targets and stuff is that you're taking too long at a hospital. But well done, you're validating everything that needs to be validated. And it wasn't, you know, you didn't go through any cases." (GD15, T2 CD-RISC Score: 74)*

> *[talking about 6 month review] "and it was just a waste of time. He wasn't interested in any actual issues I had, just whether I was hitting their targets." (CH32, T2. CD-RISC Score: 57)*

Participants felt that managers were not around to offer support, whether that be emotional support or reassurance that they were performing well. At their 6- and 9-month NQP reviews many participants were told that they were performing well, but they saw this as erroneous because it was based on metrics that the participants did not value, metrics which were at odds with their own view of the paramedic role.

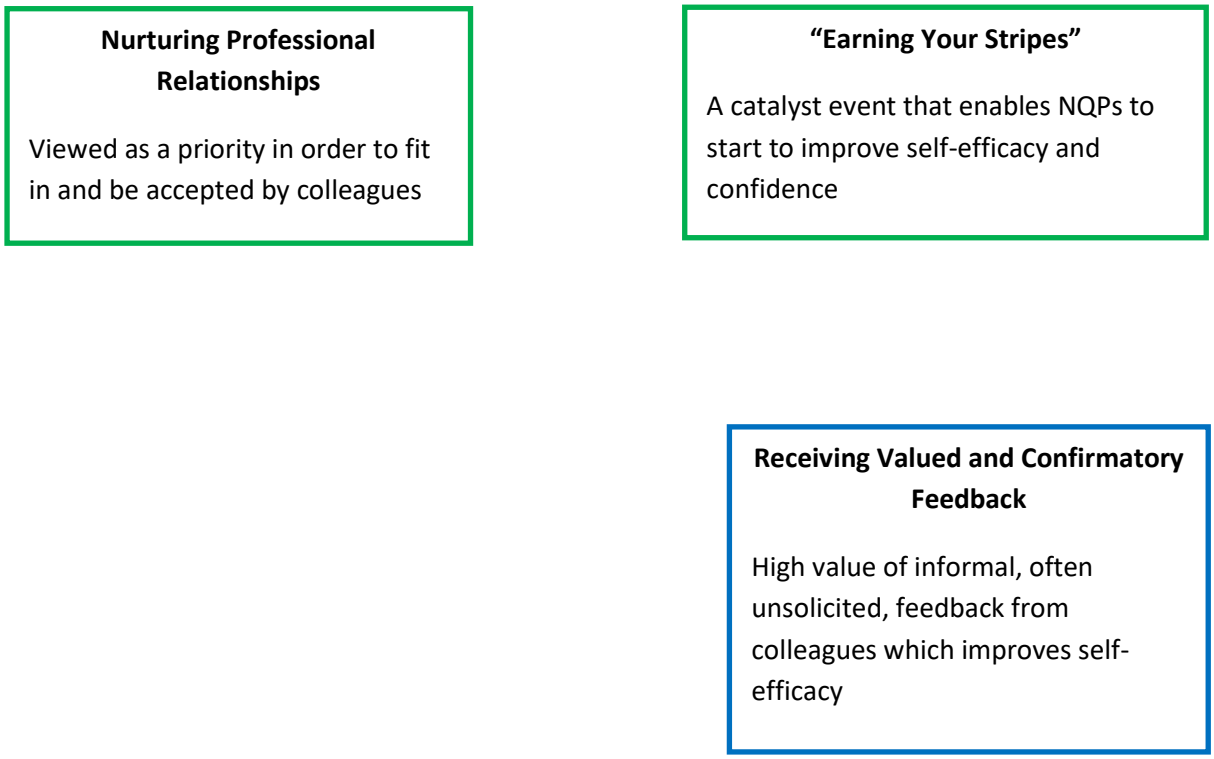
> *[talking about an expectation that a manager would contact participant after a fatal RTC]: "So they are busy. And they have very little time. So I think if it's*

not dealt with, at the time, I think it just gets forgotten" (FH35, T2. CD-RISC Score: 77)

"I think it's just that reassurance coming from your boss, or someone senior to you, that you are doing things right" (FH35, T2. CD-RISC Score: 77)

In summary, this category describes how participants received feedback from different sources. Participants particularly valued informal feedback from colleagues and reported how this type of feedback improved their confidence. Figure 9 shows how this category contributes to the developing theory.

Figure 9 Receiving Valued and Confirmatory Feedback in Constructed Theory



5.3.1.4 Receiving Emotional and Practical Support

During T2 and T3 some participants described how they received valued support from paramedic colleagues. The support that these participants received supported resilience during difficult times. This is in contrast to those participants who did not identify with, or were not accepted into, the group who did not receive support and this appeared to have an adverse effect on both resilience and their ability to stay in the paramedic role with the same social group.

Prior to T2, SP55 had a big reduction to their resilience when they made what they described as a clinical error that they felt lead to a serious adverse outcome for a patient.

> *"If I had [taken the patient to hospital] he might still be here." (SP55, T2. CD-RISC Score: 62)*

During the T2 interview it was clear that this participant was extremely upset about the situation. When asked what the hardest thing about the situation the participant responded:

> *"I just hate myself" (SP55, T2. CD-RISC Score: 62)*

The participant's resilience score had reduced dramatically from 84 at T1 to 62 at T2. The participants demeanour during the interview, comments they made and their resilience score demonstrates the enormous effect that this event had on them. However, the participant reports how they received support from colleagues, and this appears to be a very positive effect of having been accepted into the social group:

> *"One paramedic said, 'I've been where you are and it's tough, but you do come out the other end'" (SP55, T2. CD-RISC Score: 62)*

The participant sums up the support she has received from the group:

> *"The investigation is ongoing, but a lot of people have said to me 'we like you, you're a good paramedic, you'll be ok' and that makes me feel a lot better about it" (SP55, T2. CD-RISC Score: 62)*

"There were a couple of days at the beginning when I probably wasn't in the right frame of mind to be at work, but people were kind. They just let me drive, they dealt with the patients" (SP55, T2. CD-RISC Score:62)

During the T3 interview this participant appeared much less upset, and their resilience score had improved dramatically from 62 to 72. Reflecting on the incident and the period following it, the participants largely attributed the fact that they were able to continue going to work, and did not give up as a paramedic, to the support they received informally with colleagues and formally through the trust:

"Being supported by the trust really helped. I took it day-by-day and I couldn't have kept going back if it wasn't for people being so kind and supportive to me" (SP55, T3. CD-RISC Score: 72)

Another participant reported at T3 that they were really struggling with night shifts and felt that if they were required to continue to do night shifts then that would be unsustainable and they would have to leave the ambulance service:

"I've been doing nights for a good year or so, and I've realised that I don't enjoy life at all, and I can feel myself getting really ugly on night shifts" (BE47, T3. CD-RISC Score: 89)

This participant points to the collegiality with colleagues as the main reason for being able to turn up to work for this long:

"I've got really good crew-mates, well they are my friends, and it's them that have made me hold on for so long" (BE47, T3. CD-RISC Score: 89)

This participant's resilience score remains very high and it appears that a large part of being able to remain resilient in the face of difficulties around shift-work can be attributed to their positive relationship and collegiality with colleagues.

These two participants highlighted how being accepted into the group had a positive effect upon resilience when faced with stressors. The two examples are extreme examples of stressors, but demonstrate how support of colleagues has helped to support resilience in participants.

The experience of the above participants stands in stark contrast to other participants who have not been accepted into the group, and their experience during stressful times. Ostensibly, they point towards a lack of emotional and physical support.

One participant who had not been accepted into the group was experiencing difficulties when applying for a permanent 'line'. Up until this point most participants are on 'relief'. This means that they fill shifts that are not otherwise covered. These can be at any number of stations in an area. After a while permanent rota lines become available at a particular station with a permanent working pattern. These are seen as highly preferable by participants.

A permanent rota line came up at the station CH32 works at and paramedics on relief who wanted this line were required to apply for it and be interviewed. CH32 had an overwhelming feeling that the group did not want him to get the position because of their actions to try to stop him from being interviewed. Firstly, he did not find out about the position until it was very short notice to apply, and then only by chance:

> *"Everyone else got emails about a month before, I only got an email the night before the application was due" (CH32, T3. CD-RISC Score: 69)*

The participant then felt that they were trying to prevent him from being interviewed. Certainly it seems that they were not very accommodating when organising an interview:

> *"So they said on Sunday 'can you come in for an interview tomorrow'?. I said, 'I can but it would have to be in the afternoon because I'm on a night shift and don't finish until 7am'. I then got an email saying it would have to be before 12 and if I can't do that then I need to withdraw my application" (CH32, T3. CD-RISC Score: 69)*

On reflection of their experience the participant summed up the culture they experienced:

> *"It' all a bit cliquey, and they are very resistant to change. Someone did warn me that it might be like that" (CH32, T3. CD-RISC Score: 69)*

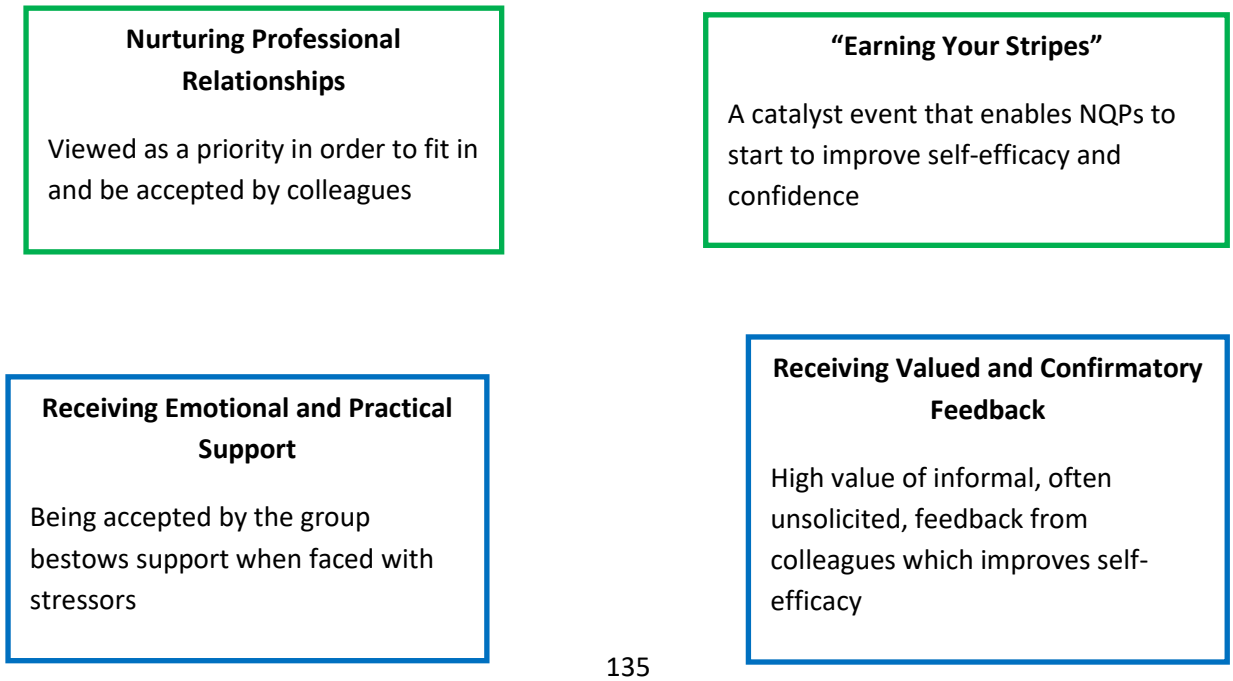
This participant sought out a totally different area in which to work away from group, in a different county. This outcome is a common outcome of out-group discrimination, and one which the group wants for those that are not accepted into the group:

> *"So I put myself on the list for this station and I randomly got an email saying 'do you want a line?'. And they were really good, they responded to emails, they answered all my questions, they dealt with the relocation. I'm feeling much more positive about the future."* *(CH32, T3. CD-RISC Score: 69)*

When faced with these difficulties the participant dealt with what they saw as an unresolvable social situation by seeking opportunities away from the established group.

In summary, this category describes the link between the category "Earning Your Stripes" and "Nurturing Professional Relationships". It highlights how those participants that navigated these categories in such a way as to fit in with the group received support from colleagues when faced with stressors. Those that had not fitted in with the group and had navigated a different path did not receive these benefits, and indeed in some cases felt that they faced discrimination from colleagues. Figure 10 shows how this category contributes to the developing theory.

Figure 10 Receiving Emotional and Practical Support in Constructed Theory



5.3.2 Constructing the Theory: Navigating new Identities

The previous section has described how the categories were constructed over three time periods. The categories seem to be connected by the issue of changing identity, particularly around professional, social, and personal identity. This section will describe how the categories are linked by these changing identities and will describe how they account for participants' experiences. A diagram showing the constructed theory can be found in figure 13 at the end of this section.

5.3.2.1 Professional Identity

Professional identity accounts for participants' feelings of being a bona fide paramedic. It incorporates initial feelings of self-doubt and often anxiety at whether they felt they were able to deal with the requirements of their new role. For some this self-doubt remained through to T2, whereas for others they were able to negotiate their professional identity sooner and felt increases in confidence and self-efficacy. For many this reduced associated anxiety.

The early catalyst for starting to negotiate professional identity was the category "Earning Your Stripes". "Earning Your Stripes" refers to the rite of passage of attending a catalyst event and the effects that this starts to have on identity. This catalyst event was the start-point of participants being able to start to understand their new identity across the three spheres. Each sphere of identity had an influence on the other spheres after a catalyst event, partly because they were being navigated simultaneously. A catalyst event referred to a callout that was a high-acuity, high stress situation where the patient was suffering from a life-threatening illness/injury. The most commonly cited call was attending to a patient who was in cardiac arrest:

> *"Going to cardiac arrests feels like our bread-and-butter. If nothing else I need to be able to deal with that" (SP55, T1. CD-RISC Score: 84)*

This sort of callout became a rite of passage for participants and was the point at which a new professional identity could start to be negotiated. For those participants that had gone through this rite of passage they were able to start to reconcile their

new personal, professional and social identity. However, for those that had not yet attended a critical job there was an almost palpable emotional vulnerability:

> *"I've still not attended or run a cardiac arrest on my own. That scares the life out of me, absolutely. And I guess when I think of the anxiety and the panic, that's what drives it." (RN21, T1. CD-RISC Score: 58)*

It was difficult for them to identify as a paramedic when they were so fundamentally unsure if they were able to perform what they perceived to be the key facets of the role. There is also an issue here about role identity. Participants overwhelmingly identified that attending to high acuity callouts was the key facet and identifier of the paramedic role. However, looking at the role more objectively, particularly in relation to chapter two exploring the context of the ambulance service, one might surmise that the role of the paramedic has changed to a point where attending to high acuity callouts is a minor aspect of the role. However, participants felt that if they could perform well in high-acuity callouts then they could manage any situation they faced.

In the category 'Receiving Valued and Confirmatory Feedback' participants described how they placed a high value on informal feedback from colleagues, and that this improved their confidence and self-efficacy. There is a link here to the category "Nurturing Professional Relationships" where participants prioritised building professional relationships with colleagues during T1 and T2. The effect of building these relationships with colleagues was that they were more likely to receive impromptu, informal and positive feedback from colleagues which would improve their sense of professional identity. The opposite is also true for those that struggled to build positive relationships with colleagues, that they had less positive informal interactions with colleagues. These participants received no feedback or more negative feedback which did not improve confidence and had an adverse effect on their professional identity. In contrast to participants who built relationships with colleagues and felt less emotional turbulence as a consequence, these participants still felt some anxiety and vulnerability because of a lack of a coherent, developed professional identity.

5.3.2.2 Social Identity

Social identity accounts for the extent to which participants feel like they are part of a group of paramedics, an accepted member of the group. It incorporates participants looking towards established paramedics to understand the behaviours and values that they should display as a paramedic in order to increase their professional identity. It also demonstrates how being an accepted member of a group of paramedics bestows advantages on participants in terms of professional and personal identity. That is, a coherent and developed social identity improves identity in other spheres.

In the category "Earning Your Stripes" participants attended to a catalyst event and started to negotiate and understand their professional identity. However, attending a catalyst event also had an effect on social identity. Following a catalyst event participants felt that established colleagues were watching their performance and either accepting them into the group, affirming their professional identity as a paramedic, or of not accepting them into the group resulting in a lot of stress for participants and feeling like an outsider:

> *"But they are watching me and waiting for me to make a mistake." (PD85, T1. CD-RISC Score 88)*

The category "Nurturing Professional Relationships" showed how participants prioritised building a relationship with colleagues. It was important for many participants that they were liked by colleagues, and that this supported their evolving social identity with the group. As highlighted earlier, some participants reflected on how feeling like they fitted in with colleagues gave them a greater sense of identity as a paramedic and reduced anxiety and nervousness of going in to work. This category highlights how, although the catalyst event in the category "Earning Your Stripes" was important in developing self-efficacy and professional identity, there was a large social aspect to the development of professional identity where fitting in with the social group also helped to develop professional identity. Participants appeared to realise this early on during the T1 time period and consciously nurtured these relationships with colleagues.

Developing a social identity with the established group unlocked benefits for participants which supported their professional identity. This is discussed earlier in relation to colleagues giving valued and confirmatory feedback to participants which improved self-efficacy and their developing professional identity.

Another tangible benefit of gaining a social identity with the group that many participants spoke about was that they received support from the group during hard times. This is discussed in the category “Receiving Emotional and Physical Support” and was unlocked by the time spent nurturing relationships with colleagues and by navigating the catalyst event during “Earning Your Stripes”. Participants describe how, now that they felt they fitted in with colleagues, they received emotional support as well as more practical and physical support, and that this improved their ability to cope at work. This is contrast to those participants that had not developed a social identity with the group who were feeling ostracised by other paramedics and, in some cases, feeling like they were being forced out of the workplace.

It is interesting to note that the prevailing professional and social identity of being a paramedic appears, in most cases, to override other aspects of identity such as gender, sexuality and ethnicity. The absence of discussion about this demographic data was noticeable in the interviews with participants and seems to highlight how strongly the paramedic identity is felt by participants.

The developing social identity had an effect on developing professional identity, as well as in receiving support from colleagues during hard times. Both of these things helped to reduce anxiety and improve participants’ ability to cope with the demands of work.

5.3.2.3 Personal Identity

During the early interviews, the turbulence experienced as a result of navigating the new identities caused some participants to question their sense of self. Being a paramedic was not just part of their evolving professional identity, but was a part of who they are as a person:

"The problem is that being a paramedic is what I am now, it's everything I've been working for, so if I can't do that then I'm not really sure who I am. (RN21,T1. CD-RISC score: 58)"

The emotional turbulence, for some participants, caused a friction between the way the world viewed their identity and the way that they viewed themselves. One participant, in particular, summed up the experience of many:

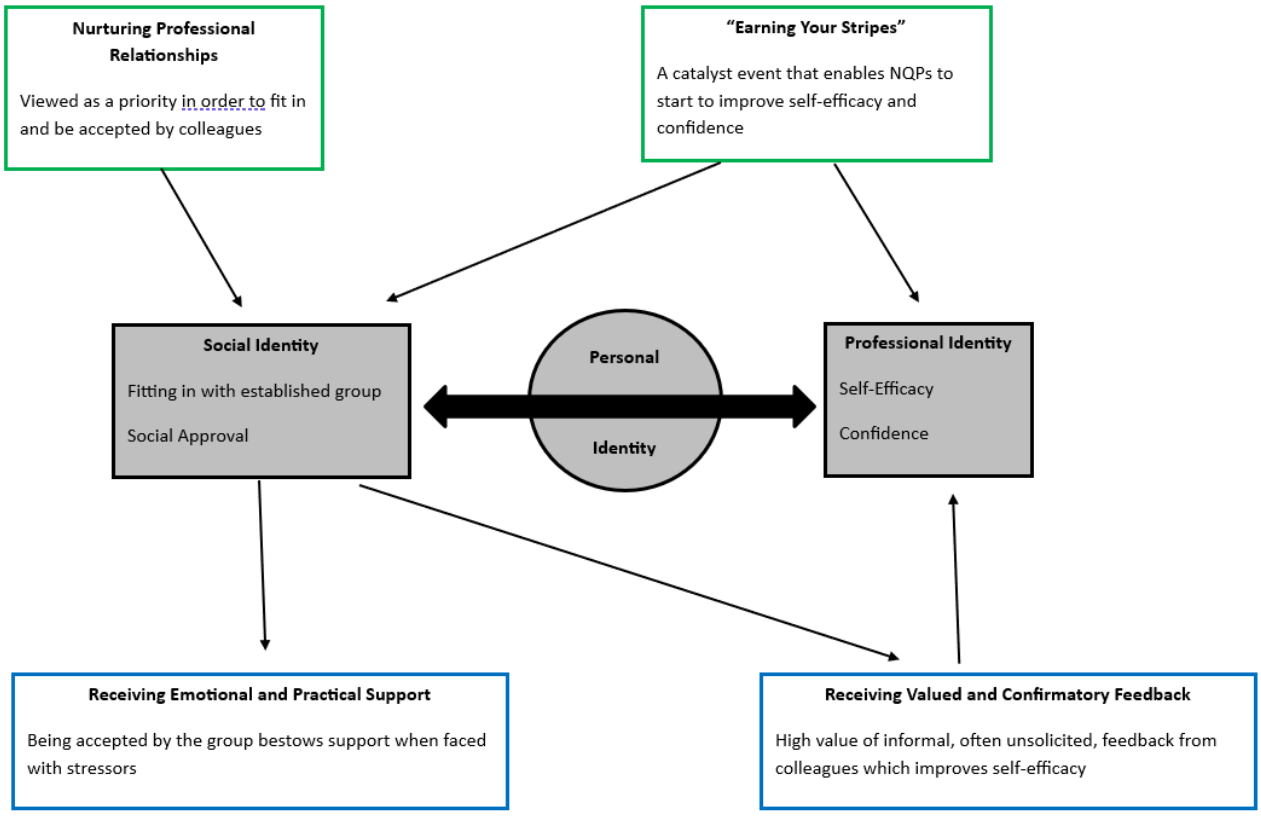
"They all view me as 'the paramedic' as if that's what I am, but I sure don't feel like a paramedic, I'm not even sure I can do it. So then what am I? (FW99, T1. CD-RISC score: 61)"

Therefore, the challenges faced in navigating professional identity and social identity, and the emotional turbulence that is evoked, affected their fundamental sense of who they are in the world. The turbulence experienced as a result of trying to negotiate professional identity, and in trying to gain a social identity with the group, had more fundamental origins in personal identity than simply being issues that could be isolated to the workplace. These issues affected participants sense of who they are, their personal identity, and an inability to navigate professional and social identity threatened some participants personal identity. Conversely, once participants were able to navigate their changing identities through the time periods, then these fundamental anxieties abated, and their new identities were able to evolve.

The diagram below (figure 13) shows a diagrammatic illustration of the theory. Professional, social and personal identity can be seen in the centre of the diagram as the factors that link all the categories. The categories with green outlines are categories that helped participants with starting to navigate and understand their new identities. The arrows show which of the identities are affected by the category. The categories with blue outlines are the effects of navigating these new identities and the arrows highlight this. The diagram shows how all the categories are linked and that there are many different pathways that participants might take through this experience.

Personal identity appears at the very centre of the diagram, which shows it centrality to the experiences of participants, and that any effect on other facets of identity have a direct impact on personal identity.

Figure 13: Navigating New Identities Theory



5.4 SECTION 3: Quantitative Findings

5.4.1 CD-RISC Group Quantitative Findings Over Time Sampling Periods

Quantitative findings are presented which show group norms for this cohort over the first year of their employment as paramedics. Further sections of the findings chapter will mix quantitative and qualitative findings to highlight how, why and to what extent individuals deviate from the group norms.

Table 8 shows the mean, standard deviation and range of CD-RISC scores for the cohort over the three time periods (T1, T2 and T3). It also shows the Shapiro-Wilks test of normality value for each time-period. The significance value of over 0.05 for each of the time periods shows that it is likely that the sample population are normally distributed in terms of their resilience score.

The mean across the three time periods, 74.7 (T1), 73.8 (T2) and 75.4 (T3) out of 100, show that the average CD-RISC scores for the cohort remain fairly consistent over time.

Table 8 Descriptive Statistics of CD-RISC scores

	T1	**T2**	**T3**
Mean	74.7	73.8	75.4
Standard Deviation	9.6	9	6.8
Range	58-88 (30)	57-91 (34)	67-89 (32)
Median	76.5	74	75.5
25th Centile	68.5	68.5	68.75
75th Centile	83.25	78.75	80
IQR	14.75	10.25	11.25
Shapiro-Wilk Test	0.064	0.909	0.324

The standard deviation for the whole cohort, see table 10, becomes narrower over time (T1 9.6, T2 9, T3 6.8). This means that there are less extremes of scores away from the mean. T3 has a much lower standard deviation (6.8) than T1 and T2 (9.6 and 9 respectively). This could represent a regression to the mean, indicating that extreme events that affect resilience are less likely to be sustained over time, so scores tend towards the mean in subsequent time-periods. Another, perhaps more likely explanation is that the as time goes on the experiences of participants becomes more homogenous. The qualitative theory, which explores shared experiences of participants, helps to support this explanation.

The interquartile range represents the middle 50% of CD-RISC scores. T1 has the highest interquartile range (14.75) and T2 has the smallest interquartile range

(10.25) with a slight rise to 11.25 in T3. The 25th centile remains consistent over time (68.5, 68.5, 68.75), whereas it is the movement of the 75th centile that accounts for changes in interquartile range.

Figure 8 shows a box and whisker chart for each time-period. The vertical lines represent the range of scores. The upper and lower limits of each box represent the upper and lower interquartile value respectively. The black horizontal line represents the median. This is a visual representation of the range and interquartile range in each time-period. T2 shows an outlier that is outside the upper limit of the whisker. An outlier is shown where a result is 1.5 times the interquartile range above the 75th centile.

Figure 11 Box and whisker chart showing cohort CD-RISC scores T1, T2 and T3

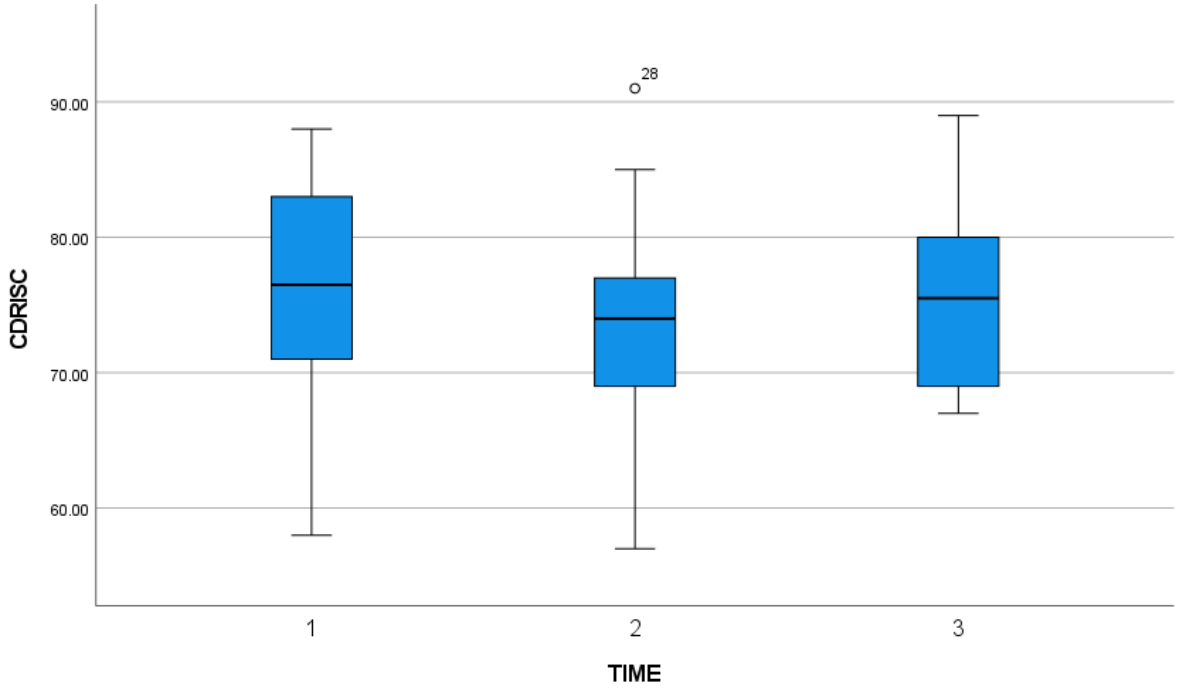
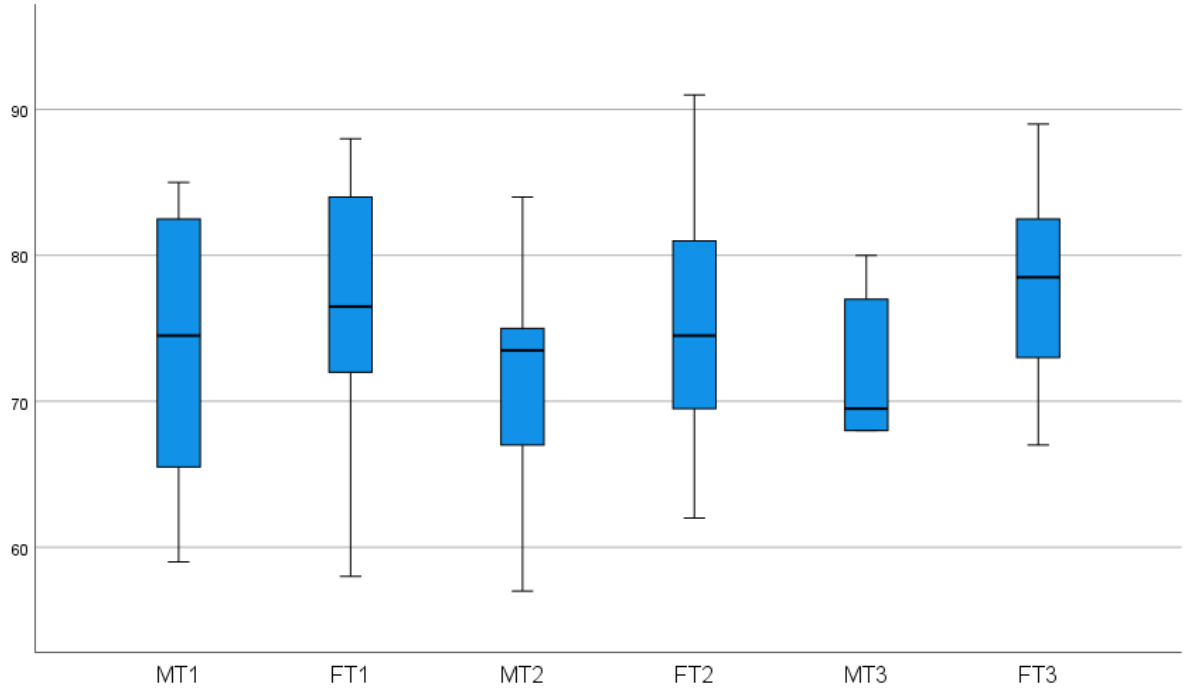


Table 9 shows the CD-RISC scores split by gender. In general females had slightly higher CD-RISC scores across all three time periods than males. However, with small sample sizes one participant's score could have a big effect on the gender average so this should be viewed with caution. Figure 12 shows a box and whisker chart of CD-RISC scores split by gender highlighting visually the higher average scores of females over the three time periods.

Table 9 CD-RISC scores shown by gender

	Number	Lowest Score	Highest Score	Mean Score	SD
Male T1	8	59	85	73.63	10.05
Female T1	10	58	88	75.6	9.73
Male T2	6	57	84	71.66	9.03
Female T2	8	62	91	75	9.18
Male T3	6	68	80	72	5.18
Female T3	8	67	89	78	7.05

Figure 12 Box and whisker chart showing CD-RISC scores by gender



Mean scores for each question on the CD-RISC questionnaire can be seen in table 10. Question two (close and secure relationships) had the highest average score in each time period (4, 3.71. 3.82). This may indicate that participants across the spectrum of resilience scores felt they had good social support over time. The high scores for social support are important when considering that the qualitative findings emphasised the influence of fitting in and receiving support from established paramedics. These findings support the importance of social support to participants.

Table 10 CD-RISC results by question T1, T2 and T3

CD-RISC Topic	T1 Average Response Score (0, not true at all – 4, true nearly all of the time)	T2 Average Response Score (0, not true at all – 4, true nearly all of the time)	T3 Average Response Score (0, not true at all – 4, true nearly all of the time)
Able to adapt to change	3.28	3.21	3.36
Close and secure relationships	4.00	3.71	3.82
Sometimes fate or God can help	0.83	0.79	0.55
Can deal with whatever comes	3.06	3.29	3.18
Past successes give confidence for new challenges	3.17	3.14	3.27
See the humorous side of things	2.67	2.79	3.27
Coping with stress strengthens	3.06	2.71	2.82

Tend to bounce back after illness or hardship	3.39	3.07	3.18
Things happen for a reason	2.28	2.36	2.18
Best effort no matter what	3.44	3.36	3.45
You can achieve your goals	3.39	3.29	3.09
When things look hopeless I don't give up	3.11	3.29	3.45
Know where to turn for help	3.39	3.43	3.55
Under pressure, focus and think clearly	3.11	3.14	3.18
Prefer to take the lead in problem-solving	2.44	2.71	2.55
Not easily discouraged by failure	2.56	2.71	2.91
Think of self as strong person	3.33	3.36	3.36
Make unpopular or difficult decisions	2.89	2.86	2.64
Can handle unpleasant feelings	3.11	2.86	3.09
Have to act on a hunch	2.72	2.64	2.55
Strong sense of purpose	2.83	2.79	2.91

In control of your life	3.17	2.79	3.27
I like challenges	3.06	2.93	3.00
You work to attain your goals	3.11	3.29	3.00
Pride in your achievements	3.33	3.29	3.18

Question three relates to believing in fate or God, and received the lowest average score across the three time periods (0.83, 0.79, 0.55). The second lowest score was feeling that things happen for a reason (2.28, 2.36, 2.18). Both of these questions relate to spirituality, faith and determinism/fatalism in Connor and Davidson's (2003) factor analysis. The cohort seem to generally reject the notion of determinism from their responses to these questions. The concept of working hard and giving their best effort no matter what (3.44, 3.36, 3.45) was the second highest score, which may indicate that the cohort identify with trying hard and giving things their best shot (internal locus of control) rather than relying on determinism or outside intervention (external locus of control).

5.4.2 Individual Quantitative Findings Over Time Sampling Periods

Table 11 showing individual CD-RISC scores for each of the participants over three time periods shows that scores vary significantly between time periods for some participants. Some participants' scores start low in T1 and rise in subsequent time periods. For example, BE47's score goes from 77 in T1 to 91 in T2 and 89 in T3. Similarly, RN21's scores start at 58 in T1, rising to 69 in T2 and 74 in T3. Some participants experience a drop in their resilience score in T2. For example, SP55's resilience score goes from 84 in T1, drops to 62 in T2 and rises to 72 in T3. Similarly, QR63's score goes from 80 in T1 to 70 in T2 before rising back to 80 in T3. This demonstrates that although the mean of the group remains fairly constant over time, this is not the case for all individual participants. This is consistent with what one would expect when studying resilience of individuals over time, as explored in the

conceptualisation of resilience in chapter two. Qualitative data has helped illuminate why this may be the case for some individuals and the illustrative examples in section four will highlight some of the individual pathways through the first year of being a paramedic.

Table 11 Individual participants' CD-RISC scores T1, T2 and T3

Participant Identifier	**T1 CD-RISC Score (/100)**	**T2 CD-RISC Score (/100)**	**T3 CD-RISC Score (/100)**
GD15	72	74	79
JT67	84	85	85
FH35	76	77	78
AP25	59	75	68
SP55	84	62	72
BN54	71	67	70
RN21	58	69	74
MT77	77	74	68
LO94	85	84	80
BE47	77	91	89
QR63	80	70	80
JY40	83	73	77
CH32	60	57	69
LF90	76	75	67
FW99	61	N/A	N/A

DN53	82	N/A	N/A
PD85	88	N/A	N/A
CN34	72	N/A	N/A

5.5 SECTION 4: Illustrative Examples

In this section three participant's journeys will be presented individually. Qualitative and quantitative data will be mixed to understand each individual's experiences. The section will illuminate the categories in the main theory and will identify how these categories impact on a changing identity, and on resilience of individuals. Participant's quotes are presented to show how the experiences are grounded in data. Quotes are in italics and quotation marks. Square brackets are used where the researcher has added text for context [ ].

As a whole, the case studies highlight how the theory applies to all participants, and how there are similarities in the types of turbulence that participants experienced. However, it will also highlight the differences in how the categories are navigated, how these differences affect identity in different ways for individuals, and how there are differences in resilience as a result of the unique pathway taken through this process.

5.5.1 Illustrative Example 1: RN21

This participant's case study is presented because their resilience scores increased from quite a low level at T1 (58) to 74 at T3. Table 12 shows the CD-RISC score for each time-period. This participant's CD RISC score at T1 was the lowest of the cohort, but by T3 she was very near to the cohort average. Her journey is presented to help illustrate how the navigation of professional and social identity was originally emotionally turbulent, and demonstrates how she navigated these challenges to feel like an assured paramedic with much improved resilience and a much clearer professional and social identity.

Table 12 RN21 CD-RISC score for T1, T2 and T3

	T1	**T2**	**T3**
RN21 CDRISC Score /100	58	69	74
Cohort Mean (SD)	74.7 (9.6)	73.8 (9)	75.4 (6.8)

RN21's journey will be presented to illuminate the theory in the main findings and to add more depth to how the categories in navigating a new identity affects identity and resilience.

5.5.1.1 T1: Attending a Catalyst event

During T1 this participant experienced an emotionally turbulent time. There was a palpable anxiety when she talked about being at work. This seems to be underlined by a lack of self-efficacy:

> *"I don't feel confident in my own ability, and I don't feel prepared to be out on my own as a paramedic"*

This participant was previously a community first responder. This is a lay person in the community who volunteers to administer immediate care to seriously unwell people. In this role, she felt useful and accomplished. But in her role as a paramedic the expectations are different, and she is concerned that she will go about her day-to-day role and not feel like she has made a difference to peoples' lives. This appears to speak to a changing professional identity set against the day-to-day realities of the role:

> *"when you are a responder it's almost like when that pager goes off there is an emergency. And because you are a lay person and you're doing it as a lay person you automatically get that adrenaline build-up and it's like "oooh yeah I can be useful here". And even if you go to it and it's not what you expect or it's not quite as emergent as it could be you do still feel useful because you are a*

lay person. And then once you go through the training process it's like "Oh actually we do get sent to an awful lot of rubbish and the general public could be better educated at looking after themselves". And our systems in place could be better at triaging so we don't have to go to the rubbish and I guess my expectation now is when am I going to do a job that I can walk away from saying "Damn, I did make a difference there", because I used to come back from my calls out as a responder going "Yes, I made a difference. But I'm worried that that's not going to be the case"

However, there was an anxiety about attending to a critically unwell patient to the point where she would prefer to not deal with seriously unwell people, because she did not think that she would be able to adequately deal with it:

"I think the fear of holding somebody's life and wellbeing in my hands sometimes can feel really overwhelming. There have been times over the last three years of uni where I just think "Oh my goodness, is anybody really cut out for a job where you are holding somebody's life in your hands"?"

"It's anxiety, yeah. It's that I'll go to something and I'll think 'I have absolutely no idea what to do here'. […] I've still not attended or run a cardiac arrest on my own. That scares the life out of me, absolutely. And I guess when I think of the anxiety and the panic, that's what drives it"

The above quote was in response to the interviewer asking about what a good day looks like. The participant's response was that a good day is one where they do not have any calls where the patient is seriously unwell:

"there's nothing too taxing. I don't have to open my drugs bag."

The interviewer gently challenged this notion because other participants tended to state that, although they were nervous and apprehensive about attending to a critically unwell patient, they would see that as worthwhile and a good test of their ability. In essence, they were acknowledging the process of attending a catalyst event to increase self-efficacy and identity. Other participants identified attending to these high acuity calls as the unique role identity, the thing that makes them uniquely stand out as a paramedic. Therefore, the interviewer asked why this participant did

not want to attend these high acuity calls. Her response was simply a reiteration of a lack of self-efficacy:

> *"I don't have confidence in my own ability"*

This lack of self-efficacy appeared to be at the core of the emotional turbulence and anxiety that this participant was feeling. She wanted to be useful and to help people, but at the same time there was anxiety about attending to those that need the most urgent help. It appeared to stem from her time on placement as a student where she had a difficult relationship with her mentor:

> *"I didn't have a good relationship with my mentor, I was always trying to swap shifts to work with other paramedics. Placement didn't go well. I built more confidence during my 2-week trust induction then I ever did whilst I was training"*

It was unfortunate for this participant that her first day as a paramedic did not go well:

> *"my very first day as a paramedic, wearing paramedic epaulettes, it didn't start well and it just got worse and it was a car crash of a day"*

Many participants experienced clinically challenging scenarios in these early days and for the majority this had a positive effect on self-efficacy, even where they did not manage the situation as well as they felt they could have. However, this experience for this participant reinforced for her that she was not able to meet the demands of the role:

> *"they make me reflect a lot and make me question whether this is the right job, whether I'm cut out for it and to be quite honest it makes me think, you know, am I too stupid to do this? Um, you know, it brings back an awful lot of self-doubt in me"*

5.5.1.2 T1: Nurturing Professional Relationships

In these early conversations with RN21, it became apparent that her relationship with colleagues was a very important and dominant aspect of work. It is clear that she viewed this as an area that needed conscious navigation. Amongst the self-doubt about her ability to meet the demands of the role, she was also concerned about what other people might think of her performance as a paramedic:

> *“I'd always be thinking "What would my mentor think?" and then we'd carry on with my decision and my treatment plan and then I’d think, kind of "what are other people thinking about me?””*

When asked to clarify whether she was worried about what people thought about her ability as a paramedic or her as a person she said:

> “*Both*, *both*”

This demonstrates how the ability to get along with colleagues is important to this participant, and it transcends her professional identity as a paramedic because there is a desire to fundamentally be liked by people. This shows the inextricable link between professional and personal identity.

She discussed how colleagues she worked with might view her and how they might talk to each other behind her back:

> *“If you've pissed somebody off there are a lot of people who will take umbridge on the other person's behalf. So you might not have that kind of cheery good morning or ‘would you like a cup of tea’. ECAs talk amongst themselves about paramedics that they like to work with and they don't like to work with.*

This demonstrates the effect of not fitting in to the group, where the group might rally against her and make work that more difficult. Therefore, this participant is highlighting how this goes beyond whether or not she gets along with individuals, but the effect that her interactions with individuals has on being accepted into the group.

5.5.1.3 T2

At T2 RN21's CD-RISC score has risen from 58 to 69. During this period two notable things appear to have happened that has had a positive effect. Firstly, she has attended two cardiac arrests where she is the lead clinician at scene and this has increased her confidence to manage critically unwell patients. This is illustrative of the category "Earning Your Stripes". Secondly, she has developed a positive relationship with many colleagues (illustrative of the category Nurturing Professional Relationships) and this has provided an important source of informal feedback about her performance and how she views herself as a paramedic (illustrative of the category Receiving Valued and Confirmatory Feedback).

In T1, this participant spoke about the anxiety and panic driven by her belief that she would not be able to adequately manage a critically unwell patient, such as a cardiac arrest. By T2 she has attended two cardiac arrests. She brings these up in an unsolicited way early in the conversation which show their importance to her. The first cardiac arrest was backing up a lower skilled colleague who was in attendance on an ambulance car. When the participant arrived assuming she would be an assistant rather than the lead clinician, and subsequently realised she was the senior clinician who would need to make the decisions:

> *"I said, 'What drugs have you given? Where are we at within the cycles' and he just said, 'I'm a tech [an ambulance technician, a less qualified member of ambulance crew], I don't carry drugs', and I was thinking, 'bloody hell, I'm lead clinician here. I am lead clinician. And I haven't got a clue what I'm doing.'"*

The catalyst event is demonstrated here when the participant has initial doubt that she can manage this situation but quickly realised that she is capable of performing in this role:

> *"I didn't know what to do! Yeah. I didn't think I did. Okay. I didn't think I did. until it was just like, right take stock. And that split second of okay, what am I*

being met with here? And now I've got this. I know I've got this. I know I've got this right."

Just days before the T2 interview this participant attended her first cardiac arrest where she was the first ambulance on scene. Again, this was a situation where there was some self-doubt initially, but this quickly gave way to a feeling of self-efficacy and of being in control:

"we were going, 'so what do we do now?' Okay, yeah, I'm good on this bit. I know how to do this. I'm good on this. I know how to do this."

This incident had a big effect on the participant. Her lasting feeling about this was that:

"*It was wonderful!"*

In T2 the self-doubt was starting to be removed and the participant was starting to feel like a bona fide paramedic. Attending these catalyst events had helped her to navigate professional identity and to feel more confident as a bona fide paramedic. This was further supported by her positive relationship with colleagues during this time.

The relationship with her colleagues had meant that she had received informal, mostly unsolicited, feedback from colleagues about her work:

"I don't seek feedback. […] A couple of instances where I just want to go and talk through what I did and, you know, was that the right thing? what somebody else might have done? And actually, they're all saying, 'yeah, no, that's fine. That's okay'"

As colleagues have got to know her more, she thinks they have begun to realise that she can be highly self-critical and have been tailoring feedback to that effect, which has been helpful to her:

"We did have an incident that didn't go particularly well. And during the debrief, he said [her colleague] 'so how do you think that went.' And I was like, 'Oh my god, it was clusterfuck, it was this, it was this, it was this' and he goes, 'Yeah, but this was good. This was good. This was good. This was good.' So he said, 'Stop beating yourself up because I know for a fact that you think it went worse than it actually did.'"

Receiving this sort of feedback has given her a lot of self-confidence:

"So in the last six months, it has just gone from, from not being particularly confident in my ability to actually, do you know what, I think I'm okay. And I'm hearing a lot of people saying, I'm okay, so I will believe them."

Much of this the participant puts down to being comfortable around colleagues, knowing them better and trusting them with her emotions:

"And because I feel very comfortable in the crew room at the main station that I work at, I don't mind talking about incidents. And I do consider there are colleagues there who I will chat to, on a more personal level about how I felt a job went, you know, I feel like I did that wrong. I feel like I didn't do that as well as I could. Whereas at the beginning, I felt like I had to be quite closed because I was feeling too vulnerable."

This is in stark contrast to T1 where she explicated stated that she could not talk to colleagues about the emotional aspects of the role because she felt she could not trust them with her feelings. It is clear to see that she feels accepted by the group at this particular ambulance station and is now benefitting from the clinical and emotional support that this bestows upon her.

The participant was still aware that around unfamiliar people she felt she needed to not upset anyone and that nurturing professional relationships was still important. In talking about the cardiac arrest she attended where an experienced ambulance technician was on scene already, she describes how even though she was the

senior clinician, she was cautious about how she lead the situation in case she should upset him:

> *"I just thought he's been doing this job a long time. He knows what he's doing. Don't come in and start going, 'we need to do this. We need to do that.' Because, actually, I don't want to piss him off."*

The combination of attending a catalyst event and receiving informal feedback from colleagues, as a result of her positive relationship with them, had helped her start to understand and feel more secure within her professional identity, giving her increased self-efficacy. Additionally, it meant she had started navigating her social identity with colleagues which had bestowed benefits of support upon her that one would expect from being part of the group.

5.5.1.4 T3

By T3, RN21's CDRISC score had gone from 69 in T2 to 74. This is very near to the mean of the cohort for T3.

By this point, this participant felt as though she was able to cope with the day-to-day demands of a paramedic easily. She felt that there was not much that could faze her. She also had continued to consciously nurture professional relationships, and this had resulted in continued support from colleagues.

During the T3 interview, this participant seemed very different in the way in which she talked about her job than T1. She was self-assured and more certain when discussing the role. She felt that she was now able to manage any clinical situation that may arise:

> *"I know exactly what I'm doing. I don't have to think […] And my decision-making processes have become a lot smoother."*

She attributes much of this self-efficacy to the support she has received from colleagues, as a result of the relationship she has with them:

> *"It's great, I love coming to work, I feel like one of the team on station and I know that I can talk to anyone about jobs and they'll support me"*

Her professional identity and social identity appeared to be well formed at this stage, and this appeared to have resulted in her feeling positive about her work, and markedly a decrease in feelings of anxiety and panic about work:

> *"I used to have sleepless nights and feel myself getting panicy. I'd be, I'd be so, so anxious sometimes it was horrible. Don't get me wrong, I have a healthy respect for the work but I can sleep before shifts now, I don't get anxious. This must be what it feels like to be a proper paramedic"*

The final sentence of the paragraph above is significant and felt like it marked the end of a turbulent chapter for this participant where she grappled with self-doubt and professional identity, being accepted by colleagues and social identity. She experienced a lot of anxiety and panic through the process but has navigated these issues and has developed a strong sense of professional and social identity which has meant she has developed self-efficacy and received often unsolicited emotional support from colleagues.

5.5.2 Illustrative Example 2: CH32

This participant's case study is presented because he experienced very similar types of challenges to RN21, and encountered the issues presented in the main theory, but his journey was somewhat different. It highlights a different pathway through the first year of being a paramedic and it emphasises the importance of the socialisation/social identity aspect of the pathway. This case study emphasises the effect of not integrating into the established group, and reasons why this may be the case.

This participants CD-RISC score stayed consistently low. Table 13 shows CH32's resilience scores for each time-period. In T1 he had the third lowest score, well below the 25th centile. At T2 his scored had dropped a little to 57, which was the lowest score of the cohort. At T3 his score did rise to 69, but compared to the cohort as a whole this score was still low, just inside the 25th centile of 68.75. The reason for the actual and comparative low scores will be explored by looking at the qualitative data for CH32, including consideration of why the T3 score increased.

Table 13 CH32 CD-RISC Score for T1, T2 and T3

	T1	**T2**	**T3**
CDRISC Score /100	60	57	69
Cohort Mean (SD)	74.7 (9.6)	73.8 (9)	75.4 (6.8)

5.5.2.1 T1: Nurturing Professional Relationships

In T1 much of the focus is on this participant's relationship with colleagues and managers.

This participant had a series of difficult interactions with colleagues with whom he was working. He felt that one colleague did not respect him and did things to make the shift difficult:

> *"But if someone introduced themselves to me like that, that kind of rudely, I would say inappropriately to be honest. Just put me on the wrong foot completely to start with and I just lost all respect for them. It was clear that the way they spoke to me meant they had zero respect for me from the start either. They were obviously one of those sorts of people that you have to earn their respect. And I think in this sort of situation when you're working with different people every day that's a very difficult mindset to have, especially when as an ECA you need to have the paramedic your working with's back.*

So you need to know that they're a paramedic and respect the fact that they are a paramedic. It's not an easy thing to be a paramedic, either through the training you've done, everything you do to get to that level, it's not easy so to have got to that level and then to have got a job at doing that job and then be doing that job, sort of should hold an amount of respect with it, as opposed to treating someone as if it's their first day of uni, and I know better than you because I've been doing this for three years."

He identified that there were numerous occasions where he did not get on with the colleague that he was working a shift with, and attributed it to personality clashes:

"There's always going to be people you have personality clashes with. I don't think I'm a difficult person to get on with, but it does happen a lot here"

There were specific colleague whom he was told might be deliberately difficult towards him:

"I've been advised by some of the paramedics that some of the more established ECAs who either are trying to get on paramedic courses or have been told they can't get onto paramedic courses for whatever reason but have been in the service for a period of time of 5 years plus or something, they have a lot more experience on the road than most of the NQPs, and because they for whatever reason have not got quite to that level, there is obviously something in their mind that makes them feel negatively and they need to try to make it awkward for me"

It's clear to see that this participant is entering a workplace where he has found it difficult to integrate with colleagues and, although he is able to go to work and get the job done, it is often a fractious and tense environment.

This is also true about his relationship with managers with whom he has asked questions about the process of being a newly qualified paramedic. At the start of the process he was supposed to only work with other paramedics (not unqualified staff) and when he identified a shift where this was not the case he raised it with his managers, but did not get a satisfactory outcome:

“I identified it two weeks in advance and it took contacting a number of people and eventually, I wasn't pestering people but I made a few phonecalls, sent a few emails and thought hopefully someone will get back to me and they didn't. The day before I called up and they said "Right we'll deal with it today and we'll get the answer back to you before you finish your shift" which never happened. And then there was no-one to contact, so first thing in the morning I just called the duty officer and said "right this is the situation, what do I do?" and they said "It's the first I've heard of it" and I was like "Well it shouldn't be".

There were also frustrations about the management of the organisation that has affected him and caused stress. In one instance, where he was trying to get some administration sorted, he was told to do different things by different managers and this caused a lot of frustration:

“on a couple of occasions issues have arisen where people have turned around and said "Oh, that's not how we do it" and I've turned round, forwarded an email and said "Well that's how I was told it was done". So because I've got a paper trail it's like well this is what you've told me to do, that's what I've done, if you're now telling me that's not the way it should be done that's not my issue. And I'm not trying to be a pain in the bum but these sorts of companies are run very structured, and if the structure changes you need to tell people that are involved in that structure that it changes and if you don't then you can't punish them for doing it incorrectly on the basis that they've done what you told them to do previously”

So in addition to relationships with colleagues being difficult, he was also finding the system difficult and struggling to find managers that can support him. This participant is grappling with socialisation and acceptance into the organisation. At that moment he felt like an outsider that did not fit in with the organisation and he was struggling to understand why.

5.5.2.2 T2

At T2 this participant's CD-RISC score had dropped from 60 to 57. The interview revealed that he was experiencing a continuation of the same issues as in T1. This was causing increasing frustration and an over-riding feeling that the reward of being a paramedic is not worth the personal sacrifices he has had to make.

Friction continued to occur between him and colleagues that he was working on the ambulance with:

> *"There's always people that you don't agree with. And more often than not, it's other clinicians, which I work with very often"*

In one instance he was working with an ambulance technician and they disagreed on the best way to treat and manage a patient:

> *"That's all well and good if you want to treat patient like that. But as a paramedic, I'm not treating the patient like that. And I'm like, I understand you've got 10 years of experience, and I've effectively only got six months. But this is my decision."*

This made for an uncomfortable working environment:

> *"And the rest of the night shift was a little bit awkward."*

Another colleague he worked with was in the back of the ambulance while the participant was driving to hospital. He disagreed with what his colleague was saying to the patient and this caused some animosity:

> *"But I was listening to what he was saying. Some of the things you said aren't true. Whether you think they are or not, you can't advise a patient how their cardiac care plan is going to go, because you're not a cardiologist. So, and I've got a few more shifts coming up with this pain in the ass. And if he does it*

again, I will give him one more chance. And then I'm going to be like, I'm going to go and speak to some more senior about this because you cannot talk to patients like that."

The participant was starting to worry about who he was going to have to work with and this regularly gave him sleepless nights:

"I don't sleep the night before stuff"

When probed about the reasons for sleepless nights he talked about the worry of how who he works with will affect his day and the job he has to do. In particular he was fed up of feeling like he had to prove himself to his colleagues:

"I wonder if they're going to stand there and question me or will be awkward about it. And it's like I feel like it almost every shift even now eight months in and working with someone new all the time and there's enough pressure on my shoulders, generally with the job is quite pressured job to have to prove myself to my crewmates through another shift"

The relationship with a number of his colleagues had started to take its toll on his wellbeing. His worry about going to work was causing sleep deprivation and he was not enjoying the reality of doing the role. This was a result of issues encountered around social identity and demonstrate the 'lack of sleep and anxiety' category that is a negative result of this process.

This participant was also still experiencing issues with organisational aspects of the role and interactions with managers continue to be a source of frustration. As part of the NQP process he was supposed to have a three-month review with a manager. This did not happen and he tried to chase it up but became frustrated at a perceived lack of action:

"I've not had an email response for a while. So I stopped bothering and then I see him next time on station. He's like, I've read your email, I'm going to get

back to you or talk about it in the meeting. Which option? and I'm like, there's only so many times when you can be bothered to kind of keep going."

At this stage, many other participants had integrated into the organisation and the culture, and are starting to reap the benefits of that. In particular, they were receiving informal feedback from colleagues which supports their self-efficacy and developing professional identity. For many participants, this was the result of making conscious efforts to fit in with colleagues and be accepted into the group. This participant was not receiving any feedback, and this may be attributed to not having a cohesive social identity with the group:

"there's just no feedback regarding anything. And so you go back to the same patient again, whether it be the actually the same patient again, or a similar sort of situation, and you have no better idea than you did before of what is the right thing to do."

This had an adverse effect on his self-efficacy. Up until this point self-efficacy had not been a topic of conversation, but self-doubt was starting to appear:

"because there are a handful of jobs that I either haven't been to, or I know I'm not massively confident, partly because you've got no idea whether you're doing the right think clinically. No-one's given me any feedback"

This lack of feedback, in juxtaposition to other participants who were getting feedback and increasing self-efficacy, was causing self-doubt to materialise.

In addition to issues with interactions with colleagues, fitting into the group and friction with managers, this participant was also grappling with what it means to be a paramedic. He feels like the role was not what he expected. In fact:

"the issue is more the job. Despite sort of knowing it anyway, it's nothing like what I hoped it would be. And I guess I'm finding as a paramedic, it's more of the worst version of what I knew it was going to be."

In clarifying what it was about the job that was so difficult it was clear that he felt there's a disparity between the life-saving skills that he has and the types of calls that he attends to regularly that do not require those skills. In particular he gave examples of social issues and people with minor medical problems:

> *"there's lots of old ladies who I refer back to their doctor because they have nothing going on"*

He was trying to navigate his professional identity. He saw his role as a life-saver, dealing with critically unwell people and using skills to stabilise them. Therefore, there is a role dissonance when he was not given the opportunity to use these skills.

The sum of issues with colleagues, increasing self-doubt, and uncertain professional and role identity had caused him to really question why he wants to stay in the role, and the answer is that he cannot find a good reason:

> *"you come into the job because you want to help people, to make a difference? Yeah, I don't feel like I've done that. So what's the point? All I'm doing is cutting social ties. Not able to spend any time with my girlfriend, or my family, and being constantly knackered, and what's the point? 20 grand a year. It's not working. It's not and it's sad. But I understand why the turnover is so high. But apparently they say most people don't make five years. I completely understand why."*

The navigation of identity has been very difficult for this participant so far. It felt like he was very close to leaving the role, but T3 shows how things improved for him over the next six months.

5.5.2.3 T3

At T3, this participants CD-RISC score had risen from 57 to 69. The demeanour and the way in which he talked about life now had changed dramatically. Two things had happened in the preceding six months that had been significant in affecting this change. Firstly, he has moved to an ambulance station in a different area where he thought he would get on well with colleagues. Secondly, he had taken up a secondment as a research paramedic, so now worked half time doing that and half time working as a paramedic. These were two positive changes for the participant, but they could also be seen as an inevitable outcome of out-group behaviour where the established group force outsiders away.

Animosity with managers culminated in a disagreement with a senior area manager about policy:

> *"after a disagreement over policy, in the summer I basically got shut down by the deputy commander of this area. And even though they were completely in the wrong, they got a bit upset that I pointed out that they were completely in the wrong. And they made me work this shift even though I shouldn't have had to work the shift. So after that, there was a little bit of animosity, and I turned around to them and said, I was like, fine, I'll work the shift. But you need to apologise to me, and I've not had an apology."*

This led to him starting to look for opportunities to get away from this situation. He quite quickly found an opportunity as a research paramedic that would half the amount of time he would have to be on shift:

> *"so I was like, fine, I'll find something else to do. Luckily, I found the research thing to do to sort of help out with not having to do all the shifts."*

At the same time he had put his name down to transfer to a different area. In contrast to the communication from managers in his current area, he found that the communication was much better:

> *"So yeah, last year, I just sort of put myself on the list. And then I randomly got an email saying 'you're on the list, do you want to line [a permanent rota position]?' And they were really good. They responded to emails, which is nice. And they were really helpful. They've answered all my questions. they've dealt with all the relocation stuff"*

This was not a straightforward move because it meant relocating his girlfriend, her having to find a new job, and looking for a new property. However, this goes to show how important it was for the participant to move areas:

> *"I mean, it's going to be stressful. Two months while we try and sort this out and move, and my girlfriend has obviously got her job to find."*

Although the move had not happened yet, he was feeling much more positive about all aspects of life. Reflecting on what the change will mean to him:

> *"It's a positive thing. Yeah, I think it's going to be such an important change. It really is going to help"*

It appears that the issues around social identity and approval within the established group which was causing issues around wellbeing and professional identity have been positively addressed by removing himself from the ambulance station. Therefore, he can attach himself to a different group at a different ambulance station where he might gain more approval. This has resulted in a much more positive outlook for the future and an improved resilience score. This demonstrates the power of the group in either accepting people into the established group or, as happened in this case, driving them away. This participant demonstrates how this process has a big effect on resilience

5.5.3 Illustrative Example 3: SP55

This participant's case study is presented because they experience a significant drop in their resilience score in T2, before rising again in T3. The events surrounding the drop in resilience score and subsequent recovery are a good demonstration of some of the facets of identity for NQPs, and how the navigation of this process can support resilience. Indeed, this sort of drop in resilience followed by a 'bounce-back' could be seen to typify positive resilience. This case study particularly emphasises the importance, for this participant, of having successfully integrated into the established group and the support that is a result of that.

SP55's CD-RISC score in T1 was well above average, into the 2nd standard deviation. It then dropped to 62 in T2 which is into the 2nd standard deviation below the cohort mean, before rising to near the cohort mean in T3. Table 14 shows SP55' resilience scores at each time-period against the cohort mean.

Table 14 SP55 CD-RISC score for T1, T2 and T3

	T1	**T2**	**T3**
CDRISC Score /100	84	62	72
Cohort Mean (SD)	74.7 (9.6)	73.8 (9)	75.4 (6.8)

5.4.3.1 T1

Quantitative data for SP55 reveals some interesting insights when compared to the group norms. This participant answered higher than the group norms for the questions that are associated with fatalism/determinism in T1 (sometimes fate or God can help and things happen for a reason). Where the group as a whole seem to reject this notion and maintain an internal locus of control, SP55 identifies with this

determinism and has at least some elements of an external locus of control. This is interesting in light of the fact that her resilience score is so much higher than the group average.

Although SP55 has a high resilience score, she reveals in the qualitative data that she is anxious about attending to her first cardiac arrest, much like all other participants, and in this regard her experience is similar to other participants:

> *"I do worry about going to my first cardiac arrest as a paramedic […] That is my biggest fear until I get that job. So I don't know what's going to happen. I think that that is my biggest worry"*.

However, she appears able to put this into context and as such it does not seem to occupy her mind and cause such emotional turbulence as for many other participants:

> "*I don't worry about it much. It's just there in the back of my mind really. When it comes, I'll deal with it"*

This ability to put it to the back of her mind and deal with it when it comes is possibly a result of a more external locus of control that is highlighted by higher scores on determinism questions on the CD-RISC questionnaire.

5.5.3.2 T2

During the T2 time period SP55 experienced an extremely stressful event which significantly affected her resilience score. Her score went from 84 in T1 to 62 in T2. During the interview she was noticeably upset. She had attended to a patient who was experiencing chest pain, had left him at home and he later died from that episode. She felt she had made a clinical error and had missed signs that he was more seriously unwell. The ambulance trust was investigating the incident as a clinical error as well.

This event had a big effect on her self-efficacy:

“I don’t enjoy it at the moment because of that. At the minute, I'm just working because I have to. I need to rebuild my confidence because it’s been shattered”

The effect on her resilience and wellbeing was perhaps to be expected when she described how she felt about the incident:

“Just I hate myself”

When facing hardship, participants who had gained entry to the social group began to reap the benefits of membership of that group, namely receiving emotional support and resources from the group. Conversely, when facing hardship some participants had not socialised into the group and did not receive these benefits, leading to being pushed out of the group and compounding issues. This participant received much support from the wider group. In discussing how she was able to keep turning up for work despite not enjoying it she cited the support of colleagues:

“I've had few people know about it. Well, they're not supposed to [know about it], but they do. Confidentiality and all that means nothing. I've had a few people, like, speak to me about it. And had one paramedic, he's like, ‘I've been where you've been and it's tough. But you do come out the other end.’ So no, everyone's been good”

This sort of informal support could only be realised by having been accepted into the group and the established group acknowledging the participant as one of them. The support she received was congruent with being part of the in-group.

5.5.3.3. T3

In T3 SP55’s resilience score had increased from 62 to 72, which was just below the cohort average of 75.4.

In reflecting on how she was able to continue in the role SP55 continued to emphasise the importance of emotional support from colleagues. This was largely informal support, but it helped her enormously:

> *"I think by being supported by colleagues really helped. I think they helped me to not give up, because there would have been so easy to have quit. I was just taking each job, job to job, just getting through the day and people convincing me I was doing OK"*

Although the support this participant received was in response to an extremely stressful situation, the experience of emotional support is very similar for many of the participants who by T3 were reaping the benefits of socialisation into the group. Where this was the case this is largely reflected in individual CD-RISC scores.

The support received from the wider group also helped in re-building confidence/self-efficacy, so had an effect on professional identity, demonstrating how intrinsically they are linked:

> *"And I think I'm more confident in dealing with stuff then, I think, I've ever been, and the support I've had is to thank for that, I think. I feel like, like I know what I know and when to ask for help. I wouldn't make a mistake like that again."*

Much like other participants, it felt like this is the end of a turbulent chapter for this participant. It felt like most of the turbulence around identity has been navigated and that things may be smoother for her from now on.

5.6 Summary

This chapter has presented the findings of this mixed methods study. It highlighted how each category was constructed and used participants own words to highlight the relevance of the category to the cohort. It then presented the theory: navigating new identities. This highlighted how the categories, and participants' experiences, were related to each other through the concept of identity. It illustrated how the turbulence

that participants' felt, and the experiences they had, were rooted in the difficulties faced in navigating their changing identities.

Quantitative data was presented which highlighted that participants valued social support in supporting their resilience, and generally rejected the factors associated with external locus of control, such as determinism and fate.

Three participants were presented as illustrative examples to illuminate the theory and to identify different pathways through the process, but that all their experiences are bound by the theory: navigating new identities.

The next, and final, chapter will discuss the findings in relation to wider theory. It will explore each facet of identity presented in the findings and attempt to understand participants' experiences by looking more widely at literature. It will then suggest recommendations for practice and further research before concluding the thesis.

5.7 Personal Reflection on the Chapter

I felt privileged that participants shared often quite personal thoughts and experiences with me. At times conducting the interviews was quite emotional for me because of some of the difficult experiences that some participants had gone through.

Much of what participants said to me were not surprising to me, having worked in ambulance services as a paramedic. Some of the station dynamics with colleagues was something that I identified with and recognised from my time as an ambulance service paramedic. However, the aspects that I recognised I was able to think about them conceptually differently by being critical about my view of what they were saying. I tried to keep myself on the line of an outsider (objective researcher) and an insider (paramedic) and dip in and out of those perspectives in analysing the interviews. Trying to take an outsider perspective in particular gave me fresh insights into recognisable experiences.

Some things that participants said to me I was surprised about. The strength of feeling about attending to a cardiac arrest I found surprising and found myself

constantly asking myself why so many participants were placing so much significance on this. This was not something I identified with particularly. Again, by trying to think about these issues from an outsider and an insider perspective I was able to link the categories together through the lens of identity. As the interviews went on, I became increasingly convinced that there was something fundamental, almost existential, happening. This was particularly true of the first two interviews with participants, and the theory built around identity demonstrates this fundamental process well. I look back at these findings and believe we have constructed something that uniquely illuminates these newly qualified paramedic's experiences, something that has not been accounted for in paramedic literature before.

CHAPTER 6: Discussion

6.1 Introduction

This thesis sought to understand the transition experiences of newly qualified paramedics as they transition from student paramedic to paramedic. In doing so it looked at the resilience of participants alongside semi-structured interviews over a one-year period. It found that the first year of being a newly qualified paramedic can be emotionally turbulent, demonstrated by a range of changes in individual resilience scores over time. At the core of this turbulence is the fact that participants were navigating a changing identity as they enter the workforce as a paramedic. They were dealing with issues around professional identity, understanding the role and self-efficacy. They were trying to manage relationships with established paramedics and this had an impact, both positive and negative, on their sense of self, professional identity and resilience. Finally, participants felt so strongly about the importance of being a paramedic that it became a fundamental part of who they were. They identified and described themselves as paramedics in all contexts. It became a dominant part of their personal identity.

The discussion will firstly consider the quantitative findings. It will look at how this cohorts' resilience scores compare to other cohorts of healthcare practitioners and paramedics. Some specific aspects within the quantitative data, such as the role of locus of control and determinism, will be explored in relation to developing identity.

The discussion will then focus on the constructed theory of identity. It will explore the interlinking facets of social, professional and personal identity in turn using the evidence base. Social identity will be understood using the social identity theory and the roles of ingroups and outgroups. Professional identity will be discussed, including role identity, role dissonance and self-efficacy. Personal identity will primarily explore self-concept and how individuals construct a sense of who they are.

This chapter will then consider the implications of the findings. It will explore the importance of the findings in preparing student paramedics and in supporting newly qualified paramedics in their transition to practice. It will recommend potential

interventions that could support this, based on an analysis of the literature in relation to the findings. It will also consider where further research could be focussed to develop further understanding of this area.

The chapter will present the conclusion to the thesis, highlighting the original contribution to knowledge that is provided in both the design and findings of this research. It will state where there may be limitations in the research before summarising the research and reviewing the aims and objectives.

In keeping with other chapters, this chapter (and the thesis) will finish with a final reflection on the thesis and the PhD journey.

6.2 Cohort Resilience

Mean scores for the cohort were T1: 74.7, T2: 73.8, T3: 75.4. Although not analysed statistically, it is still useful to compare the mean cohort scores to the mean resilience scores in other studies looking at paramedic resilience. Normative resilience data for paramedic cohorts are sparse. Only three studies were identified that provide CD-RISC data on paramedic cohorts, and no studies have been carried out in the United Kingdom. Safori et al. (2022) studied the resilience of a cohort of paramedic students in Australia. Out of 229 students they found a mean resilience score of 72.6 (SD13.2), with no significant difference between year of study. This is a similar score to the cohort in this thesis. Fjeldheim et al. (2014) also studied a cohort of paramedic students, this time at a university in South Africa. Their cohort of 131 student paramedics revealed a mean resilience score of 65.06 (no SD given), which is much less than the cohort in this thesis. Froutan et al. (2018) studied the resilience of 252 paramedics in Iran. They found a mean CD-RISC score of 73.8 (SD 15.1), similar to the cohort in this study. There are issues with the generalisability of the findings on the cohort of Iranian paramedics, where the role of paramedic is very different to the United Kingdom context. The role of the paramedic in South Africa and Australia is more similar to the United Kingdom paramedic, however it is reasonable to conclude that they may face different and unique stressors. This is particularly important because this thesis has emphasised the unique context of

paramedic work in the United Kingdom and the importance of the social group on the resilience of United Kingdom paramedics. In studying the resilience of paramedics in the United Kingdom, there is a need for large scale normative data which will give a basis for comparing sub-categories of paramedics in terms of resilience. For example, if there were normative resilience scores for paramedics then the comparison of the mean resilience score of this cohort of newly qualified paramedics may reveal an important insight. Further research could aim to produce normative resilience data for paramedics in the United Kingdom.

6.3 Social Identity Theory

Social identity theory describes how people understand and develop identities through membership and categorisation of social groups (Tajfel and Turner 1979). Tajfel and Turner (1979) defined a group as a collection of individuals who perceive themselves to have similarities and share some kind of emotional involvement in the definition of the group. There is consensus between members about the key features of the group and what one needs to do to achieve membership of it. In this way people come to understand more about their self by having membership of social groups. In this study the social group are the established paramedics and ambulance staff, a professional group. This section will explore the different facets of social identity theory and how they relate to the findings of this study.

At the start of their transition to practice, many participants appeared to lack self-efficacy and many were unsure if they could fulfil the role of the paramedic. They were not able to identify as a paramedic and for many participants this was at the heart of the emotional turbulence that they were feeling. Perhaps participants still felt their student status more strongly than their new paramedic status, certainly this theory was postulated for newly qualified doctors (Burford 2012). It was when they felt that they had attained membership of the social group that they started to feel more like a bona fide paramedic. That is, membership of the social group helped them in developing their identity as a paramedic.

This idea is supported by the notion of self-concept. Membership of social groups helps people to understand who they are and where they fit in within a given context (Hogg and Terry 2000). This desire to seek out membership of the professional social group is supported by studies amongst other newly qualified healthcare professionals. Willetts and Clarke (2014) describe how literature exploring the transition of nurses looks at academic preparation for practice, but that this fails to acknowledge the importance of the social performance and social activities in helping newly qualified nurses to understand their new identity. There are parallels with participants in this study, who prioritised forming working relationships with colleagues in order to receive support from the established group. Burford (2012) describes how medical students may undertake the behaviour and language of substantive doctors in order to feel more like a doctor and to feel part of the group. There is disagreement over whether membership of the group is self-identified from the individual seeking membership. Certainly, self-categorisation is an important aspect of social identity theory. Individuals look to social groups and evaluate their fit to their ideals (Stets and Burke 2000). If there is a good fit then they align themselves with this social group. However, a key consideration when thinking about cultures is whether there is an affective domain to membership which requires particular behaviours, language and action (Ashforth and Mael 1989). Certainly, studies that have looked at social identity theory within healthcare environments have found that there is a strong affective domain to membership of social groups (Burford 2012; Willetts and Clarke 2014). There may be a middle ground where identification with groups is possible through self-categorisation, but that group members are liked more if they adhere to the protocols of the group. That is, they display the typical characteristics of the group, including behaviour, language, outlook (Hogg and Terry 2000). In a study looking at paramedic socialisation, participants expressed a need to express certain attitudes, language and cynicism in order to ‘fit in’ (Devenish et al. 2016). This also explains one of the themes in the literature review of ‘fitting in’ which studies found newly qualified paramedic prioritised (Devenish 2014; Devenish et al. 2016; Donaghy 2020). This section illuminates why this has been seen as so important for newly qualified paramedics. In this study, some participants felt like they needed to prove themselves to colleagues to gain acceptance into the group, and some resented this. However, the

rejection of adhering to the characteristics of the group resulted in those participants being ostracised from the group.

Identity salience describes how individuals belonging to multiple social groups may emphasise different aspects of their identity depending upon the particular context (Stets and Burke 2000). For example, someone may be a paramedic, but also a mother, and a knitter so may express themselves differently depending on the context. Healthcare work is seen as so important by society that the salience of being a paramedic becomes a crucial aspect of their identity, as has been seen in nursing (Willetts and Clarke 2014). Therefore, their expression of identity may be inextricably linked to their self-concept.

6.3.1 Initiation into the group

In this study, a key point at which participants negotiated membership of the group was when they attended their first critical call, such as a cardiac arrest. This was termed ‘earning your stripes’. There are parallels here to the idea of a rite of passage or initiation process into the group. There appeared to be a strong common understanding amongst participants that attending to a cardiac arrest was a rite of passage and would help to initiate them into the established group. Certainly, participants felt that the colleagues acted differently towards them when they had negotiated this rite of passage, further reinforcing the salience of this process. Although literature into these rites of passage in healthcare environments is scare, Devenish et al. (2016) found very similar findings in their study looking at the socialisation of newly qualified paramedics. They found that it was by attending to critical, high acuity calls that enabled them to start to fit-in with colleagues. A memorable comment from a participant was how they were suddenly respected by colleagues after they attended a baby in cardiac arrest, and that they felt it was sad that a baby had to die to get some respect. Thus, perhaps this rite of passage is something that is peculiar to the ambulance service setting within healthcare. Rites of passages and initiation ceremonies have been documented in some environments such as sports teams and the military. In sports teams, these rites are sometimes degrading and humiliating, often termed ‘hazing’ (Johnson 2011). This is similar to

initiation ceremonies in the military, where rites are often centred around tasks that build trust and camaraderie (Pershing 2006). It may be unsurprising that similar rites are found in a military setting because the ambulance service has a pseudo-military culture, with uniform, insignia, and heroic discourse (Devenish et al. 2016; McCann and Granter 2019). However, consideration needs to be given to the desirability of these sort of rites of passage. On the one hand, many participants gained a support network through being initiated into the ingroup. On the other hand, there are issues here about the professional identity of paramedics and whether attending to a cardiac arrest is really a defining aspect of what it is to be a paramedic. This identity will be discussed later in the chapter. Additionally, for a professional group there should not be a requirement to prove oneself. After all, all of the participants had undertaken a three-year BSc degree, thousands of hours of clinical placement and been assessed as a competent paramedic. A clearer understanding of paramedics' identity would help to appropriately socialise newly qualified paramedics and help to ensure social groups are positive, appropriate and inclusive to all newly qualified paramedics.

6.3.2 The Out-Group

Another key facet of social identity theory is that those in the 'in-group' tend to overstate their attributes, ability and diversity compared to those in the 'out-group'. Those in the out-group are seen as homogenous and a threat. So much so that the ingroup will discriminate against or derogate them, sometimes on trivial or arbitrary matters (Tajfel and Turner 1979). In this study some participants experienced outgroup discrimination and felt forced to remove themselves from the group. Evaluating the outgroup less favourably and discriminating against them further supports the ingroup in their sense of superiority (Mummendey and Schreiber 1983). This is crucial to maintaining the ingroup's self-esteem so is highly desirable (Tajfel and Turner 1979). This outgroup discrimination has been seen in healthcare settings such as nursing (Ashforth and Mael 1989; Hennessy and West 1999). One participant in particular found himself in the outgroup as a result of not compromising his moral framework to adhere to the social protocol and cultural framework.

Therefore, those that have diversity of opinion are ostracised and driven out, often also experiencing poorer resilience. This is a problem because diversity of thought is organisationally and professionally useful, particularly against a backdrop of problematic ambulance service culture. Scheepers et al. (2006) describes how the ingroup behaviour is motivated, at least in part, by a strive to maintain a coherent identity. Therefore, the professional identity of paramedics may be a core concept in considering solutions to intergroup conflict. If a more inclusive and realistic professional identity can be realised for paramedics then this may make the ingroup more inclusive and reflective of reality.

The ingroup/outgroup dynamic is important because ingroup members receive benefits from the wider group. In this study, most notably, it is the support of established paramedics, and this appears to have a positive effect on improving resilience (Koni et al. 2019) and reducing burnout (Avanzi et al. 2015). The status of the group is important, so if an ingroup member falls on hard times, it is in the interest of the group to support that member to maintain the status of the group (Everett et al. 2015).

Membership of the ingroup appears to support resilience and make the transition process a little easier for newly qualified paramedics. However, this section has demonstrated that adhering to the cultural norms in terms of behaviour, attitudes and language in the affective domain is not necessarily a desirable process for improving culture within ambulance services, or for the professionalisation of paramedics. Indeed, McCann and Granter (2019) note that some of the behaviours and traditions displayed by ambulance staff are holding back their professionalisation.

6.3.3 Reducing Intergroup Discrimination

There are ways to reduce intergroup discrimination with the literature focussing on increasing intergroup contact (Dovidio et al. 2017). This is on the basis that rival groups often think of each other in reinforced stereotypes and in a dehumanised way. However, if they were to have contact they may see that they have similarities. In the ambulance context, it is difficult to see how this may work because ambulance

staff are seeing each other daily in the course of their work, and having to work together at times, so there is already contact between ingroup and outgroup members.

Another concept which may help is that of multiple categorisation. This is the idea that an individual may have membership of multiple groups simultaneously, and that there are more than just two groups (ingroup and outgroup (Crisp et al. 2001)). This approach blurs the lines of potential discrimination because differences are not so stark and members of different groups may find that they have some things in common with each other. This has been shown to reduce intergroup problems.

Both of these potential solutions encourage different groups to be in more contact and find elements they have in common. The concept of salience in social identity theory highlights how context is important in expressing membership of groups (Hogg and Terry 2000). However, the context of the ingroup in ambulance service culture is that is has such salience, and this is known to increase the strength of ingroup favouritism and of outgroup discrimination. This is complicating factor in reducing intergroup discrimination and may mean that traditional ways to reduce intergroup discrimination may not be effective.

6.3.4 Benefits of group membership

In addition to the benefits of being part of the ingroup that have been discussed above, there were further tangible benefits that were unlocked for participants that have been described in the findings: social support and informal feedback from colleagues.

6.3.4.1 Social Identity Theory and Social Support

Quantitative data showed how participants highly valued factors associated with social support in the CD-RISC25 questionnaire. This is borne out in the qualitative analysis where participants received emotional and physical support during hard

times when they had a shared identity with the social group. Haslam et al. (2012) describe how group membership and a common identity binds people and makes it much more likely that support will be given by colleagues and that it will be effective. That is, the support received by the social group is highly valued and effective. This support has multi-faceted positive effects on people. Guan and So (2016) support the point that a coherent identity with the social group enhances the perceived effect of social support, and that importantly this support improves self-efficacy and adherence to group norms. Frisch et al. (2014) tested the effects of social support on cortisol levels, the body's response to stress. They found that those with a coherent group identity received greater support from the group, and that this reduced the stress experienced for participants. This did not occur for those within the study who lacked social identity with the group (Frisch et al. 2014). Haslam et al. (2005) studied the effect of group membership and self-categorisation on social support and effects of stress. Their findings support the idea that a coherent social group identity buffers against the adverse effects of stressors, and the opposite was true for those without a coherent social identity. They explain this effect by participants being more likely to receive help from the group, take it seriously, receive support in the spirit it is intended and act on their advice (Haslam et al. 2005). They also emphasise the practical importance of social support, not just psychological support, which notably some participants in this study received which appeared to improve their resilience (Haslam et al. 2005). Social support has been found to be an important factor in nurse resilience, and it is reasonable to think that this may be important for newly qualified paramedics too (Cooper et al. 2020). The effect of social support on buffering the adverse effects of stressors may explain why those with a shared social identity with the group were able to remain generally more resilient than those without a shared social identity (those in the outgroup).

This emphasises the importance of social support for newly qualified paramedics. Recommendations to use the concept of social support to help newly qualified paramedics navigate this transition will be discussed later in the chapter.

6.3.4.2 Informal Feedback from Colleagues

The other positive outcome of membership of the social group for participants was the impromptu, informal feedback that they received from colleagues. This seemed to have a big effect on their self-efficacy, and was more valuable than more formal mechanisms of feedback that they received, such as appraisals with managers. This is supported in the evidence, with studies finding that clinicians valued feedback more from members of their own social group than from others, either inter professional groups or people they view as representing the organisation such as managers (Bochatay et al. 2019; Miles et al. 2021). They were more likely to view feedback from the ingroup as more credible (Burford 2012). Morrison et al. (2017) supports this view of emphasising informal feedback from ingroup colleagues in their study of Canadian paramedics. Their participants highlighted the deficiency in more formal feedback both from within the organisation and from wider professionals. They identified informal feedback and peer discussion as currently the most important source of feedback, highlighting that they received often poor quality feedback from those that they expected feedback from such as clinical seniors and managers (Morrison et al. 2017). A study looking at British ambulance staff also identified that formal feedback mechanisms were inadequate and often poor quality, and they too would look towards colleagues as an important source of trusted feedback. Participants in this study linked good quality feedback to improved self-efficacy (Wilson et al. 2022). Indeed, some participants had a similar experience to the participants in this thesis, whereby the formal structures for feedback focussed on targets, completing of paperwork and legal issues which both sets of participants felt did not give them any useful feedback to improve.

Feedback has been shown to have an impact on mental health and self-efficacy. A study looking at Canadian paramedics experiences of feedback showed that feedback has the potential to improve wellbeing through improving self-efficacy, and poor feedback has the opposite effect (Morrison et al. 2017). Participants in a British study also felt that good quality feedback improves staff wellbeing (Wilson et al. 2022). These findings fit within the social identity theory presented here and the idea that a coherent social identity unlocks informal feedback from colleagues, that this is

likely to be welcomed and appraised well, and that this improves self-efficacy and resilience. This is a view supported by a systematic review looking at the effect of feedback in emergency medical services, that peer-to-peer feedback could support self-efficacy in newly qualified paramedics (Wilson et al. 2023).

6.4 Professional Identity

Having a coherent professional identity is seen as important for a person's professional self-efficacy and their sense of self-concept, their personal identity (Goltz and Smith 2014). It has been demonstrated how a coherent professional identity has a positive impact on personal and professional satisfaction, as well as on self-efficacy (Johnston and Bilton 2020). The section above shows how social identity theory impacts and moderates professional identity, and that a coherent professional identity is important for a clear self-concept.

6.4.1 Self Efficacy

Bandura (1982) describes self-efficacy as the extent to which one believes they will be able to deal with prospective situations. In the early interviews within this study, newly qualified paramedics were describing concerns over their self-efficacy. They had doubts over whether they would be able to manage what they considered to be the core aspects of being a paramedic. The thesis argues that at the core of this uncertainty is a changing identity that is causing emotional turbulence. One way that self-efficacy is improved is through creating a coherent social identity with the group and gaining membership of the group. A catalyst for this happening is attending a life-threatening call, commonly a cardiac arrest. As discussed previously, this acts as a rite of passage into the group but it also helps them directly positively appraise their self-efficacy. This sudden increase in self-efficacy makes sense because Bandura (1982) states that previous mastery of a situation is the most powerful factor in increasing self-efficacy. However, for participants in this thesis it appears that this needs to be when they are newly qualified rather than when they are

students. Almost as if their experience of managing cardiac arrests as a student does not count because their identity then was ‘student’ rather than ‘paramedic’. Participants clearly view managing cardiac arrests as an important aspect of paramedic professional identity.

6.4.2 Issues with Paramedic Identity

There is a dominant professional identity around paramedics and attending to cardiac arrest and life-threatening calls. However, the limited literature that explores paramedic professional identity speaks about how a lack of a coherent professional identity of paramedics causes problems for individuals who are becoming a paramedic (Kennedy et al. 2015; Devenish et al. 2016). Chapter two explores the history of the ambulance service, and the history of the profession. Paramedics were synonymous with ambulance service work and the bulk of that work was to perform life-saving interventions and transport patients to hospital. This version of professional identity for paramedics still dominates and is deeply held by many (Munro et al. 2018). The landscape has changed. Paramedics now work in many areas of the National Health Service, and beyond, undertaking diverse roles. Evidence has looked at the identity of paramedics working in primary care, where the traditional identity of the paramedic does not hold up. Paramedics in primary care are required to have a different skill set, different knowledge and different ways of working (Eaton et al. 2021). This is true for many of the clinical areas in which paramedics now work. In addition to clinical work, evidence has looked at the identity of paramedics through the lens of becoming an academic (Munro et al. 2018). The professional identity that paramedic academics once held do not stand up in the academic world, their identity is in flux and they consider themselves neither a paramedic nor an academic (Munro et al. 2018). However, one wonders whether these issues are the result of a dominant professional identity that is at odds with the reality of paramedic work, so the identity that newly qualified paramedics are trying to navigate is vague and unclear. This dominant identity can be seen in this thesis. Participants identified undertaking life-saving work as the crux of what a paramedic does. Therefore, it was not until they had proven that they could deal with this type of

work that they could start to navigate their new professional identity. This was reinforced by the professional group who treated them differently after they had dealt with this sort of call. A useful concept to help understand this issue further is role identity.

6.4.3 Role Identity

Role identity theory describes how people create a sense of self through enactment of roles, to which there are behavioural expectations and norms (Mausz et al. 2022). Mausz et al. (2022) work highlights clearly how paramedics in their sample had a strong sense that a paramedic's role was to attend to seriously unwell patients and perform life-saving interventions. This was problematic where the reality of that role was that they were not attending to those sorts of calls. This caused a friction between what paramedics thought they should be doing and what they were actually doing on a day-to-day basis. This has been called identity disruption as a result of role dissonance (Thoits 2011). This is problematic because paramedics placed such high importance on their identity of paramedic that being unable to carry out what they saw as the key attributes of the role caused significance turbulence for many (Mausz et al. 2022). Thoits (Thoits 1991, 2011) indicates that this dissonance causes an existential threat to a person's sense of self, which is particularly acute for paramedics where the salience of the role is so high (Mausz et al. 2022). This role dissonance can be seen in the current study. Attending to a cardiac arrest is consistently said to be the hallmark of a paramedic, yet participants will rarely have to manage a cardiac arrest. This idea of a paramedic is encultured in the social group and is likely a source of some of the turbulence that participants displayed. Although there is a growing literature about the need for a narrative around paramedic professional identity (O'Meara 2011; Kennedy et al. 2015; Johnson and Bilton 2020), there is no coherent consensus on the identity of paramedics (Williams et al. 2021). Research needs to focus on the identity of paramedics as a conduit to helping newly qualified paramedics understand both their realistic role as a paramedic and improving their sense of self.

6.5 Personal Identity: Self-concept

Self-concept has been described broadly as the perception of oneself (Markus and Wurf 1987). It is the final aspect of the theory constructed in the findings of this thesis, having explored social identity and professional identity, and relates to personal identity. Self-concept mediates how people act and is affected by historical and aspirational contexts, and also crucially by social interaction with others (Shavelson 1976). As discussed earlier, a person is likely to have multiple identities, and the identities that predominant behaviour are those that are most salient. This is supported by literature on self-concept, which describes self-concept as dynamic and multifaceted (Markus and Wurf 1987). Not all facets of a person's self-concept are equal, and those that are more important to an individual are more likely to dominate and inform behaviour (Markus and Wurf 1987). The salience of being a paramedic to participants in this thesis are quite clear to see with responses such as:

> "If I'm not a paramedic then I don't know what I am"

For participants in this thesis, self-concept and that of 'being' a paramedic was mediated and affected by the social group. This idea of self-concept being linked to interaction with others is consistent with the social constructionist philosophical underpinning of this thesis. Indeed, Burr (2015) identifies that self-concept is not a physical attribute of a person but of a discourse around oneself, influenced by the discourse of others' about oneself. In this way one can see how social identity (the influence of others'), is interwoven with one's own idea about who they are, their self-concept, their personal identity. Markus and Wurf (1987) describe how there is a bilateral relationship between self-concept and the social group, with self-concept affecting interactions with the social group and the social group affecting self-concept. The merging of the behaviour of the social group and the sense of self is the result of this which means that individuals take on behaviours, language, attitudes and other identifying features of the group.

There are aspects of self-concept that are associated with resilience. Self-concept differentiation is the extent to which a person has different self-concepts in different contexts. Diehl and Hay (2010) found that those who had less self-concept differentiation (self-concept coherence) had higher resilience to daily stressors, and

vice versa. This is significant for the newly qualified paramedics in this study who saw themselves as ‘being’ paramedics across all contexts, that this may support resilience. This is supported in a nursing cohort by Mills et al. (2017) who found that a positive and coherent nursing self-concept was positively associated with resilience and retention amongst newly qualified nurses. Cowin et al. (2008) demonstrates how a positive nursing self-concept improved self-efficacy and retention intention. A positive nursing self-concept has been associated with reduced levels of burnout amongst a group of nursing students (Wang et al. 2019). The link between self-concept and resilience, and the importance of the social group in development of self-concept is perhaps another reason why those who have a coherent social identity with the group were able to remain generally more resilient.

6.6 Locus of Control

Locus of control is the extent to which people feel they have control over events that happen in their lives (Rotter 1966). The two poles are internal and external locus of control, and people will sit on this continuum. Internal locus of control is where people feel their lives are dictated by their own intent, ability, purposefulness. External locus of control is where people feel their lives are dictated by outside forces, randomness, other people or a higher power (Shanava and Gergauli 2022). For participants in this thesis, questions relating to determinism/fatalism had the lowest cohort mean scores, therefore highlighting that the cohort generally rejected an external locus of control. Those questions relating to control had high mean scores, suggesting that the cohort generally sit more towards an internal locus of control on the continuum. They appeared to identify with working hard, giving things their best shot to produce outcomes rather than relying on a higher power or randomness. The quantitative findings section in chapter five highlights how this was displayed in the responses to the CD-RISC questions. The identification of this within the quantitative data warrants discussion to try to understand the importance of locus of control in relation to the newly qualified paramedics’ experience.

There are links between locus of control and self-concept, self-esteem and self-efficacy. There is evidence suggesting that those who have an internal locus of control have a positive and strong self-concept. Drago et al. (2018) tested the link between internal locus of control, self-concept and self-efficacy in cohorts of university students. They found that those inclined towards an internal locus of control had both a more positive self-concept of their current and future selves, and a stronger self-efficacy. Those with an internal locus of control were also more prosocial and were more willing to use other people to help solve problems (Drago et al. 2018). This is interesting when considering the impact of social identity theory and the use of group membership to support resilience. Reid et al. (1977) also found a positive correlation between internal locus of control and positive self-concept, although this population were elderly nursing home residents. However, these studies highlight a clear link between these variables. In health research, Goodrich (2014) studied nurses who were transitioning to being nurse educators, so were also experiencing a changing role. He found that an internal locus of control was positively correlated with, amongst other things, positive self-esteem. Self-esteem is a term that is allied to self-concept in that self-esteem is an evaluation of one's own worth, based on an understanding of one's own self-concept. This suggests that a positive self-esteem is predicated on a clear and positive self-concept.

There is evidence that an internal locus of control improves resilience. Improving self-concept, self-efficacy and self-esteem may be the enabler to this happening. Certainly, a systematic review looking at the resilience of the physically ill found that internal locus of control, self-efficacy and self-esteem were highly correlated with improved resilience (Stewart and Yuen 2011). In any case, there appear to be a multitude of benefits of an internal locus of control on resilience and wellbeing. Montes-Hidalgo and Tomas-Sabado (2016) studied suicide risk amongst nursing students. They found that those with low self-esteem were more likely to have an external locus of control and have more suicidality. Cooper et al. (2020) undertook a concept analysis of nurse resilience and found that, amongst other things, factors highly associated with increased resilience were self-efficacy and internal locus of control. Similar findings were found in relation to undergraduate radiographers, where internal locus of control was positively associated with increased resilience (Mawson et al. 2022).

It is clear from the evidence that locus of control is linked with improved self-efficacy, self-concept and resilience. It is difficult to extrapolate locus of control in relation to resilience in the current study, other than to say that participants identified strongly with an internal locus of control, rejecting determinism and fatalism.

6.7 Attrition

As identified in chapter two, attrition within the ambulance service has been increasing in recent years. Attrition from the ambulance service between June 2010 and June 2011 was 4.8%. This is compared to an attrition of 10.3% between June 2021 and June 2022, the largest increase in attrition of any healthcare profession in the National Health Service (Lobont 2022). A Health and Care Professions Council (HCPC) (2023) report into retention of professions which they regulate, including paramedics, showed an attrition rate of only 1.8% over a four-year period for newly qualified registrants. This is the lowest out of all the professions that the HCPC regulate and is compared to the average of 5.7% across all professions within four years of gaining qualification. This demonstrates that the issues here are about attrition within the ambulance service rather than attrition from the profession. It appears that paramedics are leaving the ambulance service to seek out other opportunities as a paramedic. This is certainly the case for some of the participants within this thesis, and much of the reason for these instances can be attributed to issues around social identity and being ostracised from the group. Those participants that did seek out other opportunities away from the ambulance service tended to be those that in some way challenged the status quo by challenging expected behaviour of the established group.

The issues around attrition are sure to be multi-factorial. Wankhade et al. (2018) identifies management structure and style as a significant source of turmoil for paramedics. A Healthcare Safety Investigation Branch (2023) report identified stress as a result of having to queue at hospital to hand patients over to the emergency department. On top of this there are issues as a result of the COVID-19 pandemic. However, relevant to this thesis, there are issues around the culture of the ambulance service in which the individual has to work which can make it challenging.

A National Guardian (2023) freedom to speak up report identified the bullying, sexual harassment and negative culture of ambulance services in the United Kingdom. This is relevant to this thesis because culture change requires, at least in part, paramedics on the ground to actively change the culture of which they are a part. In literature looking at the perpetuation of culture within ambulance services the social construction of culture by workers on the ground is emphasised (Wankhade et al. 2018). Indeed, McCann et al. (2013) also highlight how senior managers had little impact on the ability to change the culture on the ground, and although this was largely related to the professionalisation agenda, it demonstrates how a ground up approach to culture change within the ambulance service is crucial. This highlights the importance of the social group in the perpetuation of cultures, and the importance of those paramedics on the ground in crafting and changing culture. For newly qualified paramedics this is very difficult because trying to change the culture potentially risks them being ostracised from the group, which happened to some participants, which would have an adverse effect on their resilience, and is likely to also result in attrition. Therefore, it is pertinent to consider what is an optimal pathway through the first year of being a paramedic taking into account the balance of social identity supporting resilience, but also perpetuating cultures.

6.8 Ambulance Service Culture

Social constructionism emphasises the importance of context in our understanding of the world (Burr 2015). This includes historical factors and so an understanding of the culture of the ambulance service is aided by exploring its' history and evolution.(McCann et al. 2013; McCann and Granter 2019) Ethnography studies looking at paramedic professionalisation highlights how uniformed services, particularly the ambulance service, have a militarised culture (McCann et al. 2013; McCann and Granter 2019). This is perhaps understandable when one considers that paramedics were first conceived and deployed as a result of conflicts, particularly the Vietnam war. This culture, amongst other things, is prone to being resistant to change and new ideas. They emphasise the importance of uniform and insignia as symbols of belonging to the culture. Managers are depicted by displaying

‘pips’ on their epaulettes to indicate seniority, and there is a ‘general’ culture of management where sub-ordinates look upwards for orders from ‘generals’ (McCann and Granter 2019). Indeed, McCann and Granter (2019) postulate that the rank and command organisational style is unlikely to be changed within the ambulance service. With this in mind, and identifying that a militarised culture makes cultural change difficult, it is hard to see an easy route to wholesale cultural change. Being a newly qualified paramedic entering this culture is difficult because the culture is so strong that they may feel helpless to change it. Indeed, it may seem more straightforward for them to take on the language and behaviours of the culture to fit in and support their resilience, because the alternative seems fraught with problems. It is interesting in this thesis that one of the categories was an in-vivo code called ‘earning your stripes’. Multiple participants used this same phrase to describe a rite of passage. These ideas have clear military roots and perhaps speak to an early socialisation into this militarised culture. This socialisation starts to happen during their undergraduate placement experiences (Devenish et al. 2016), so it is important as part of this thesis to consider the undergraduate experience of student paramedics as well as the transition experiences.

6.9 Pathway through the process: creating a safe passage, not a rite of passage

A key consideration when formulating recommendations as a result of this research is to discuss whether there is an ideal pathway through the process of being a newly qualified paramedic. The findings have highlighted how the pathway for participants were different (although based around the same core themes) and that this had different outcomes for participants.

If one was to view the pathway through a lens of wanting to maximise the resilience and support for newly qualified paramedics, then there is a clear preferred pathway through process. Newly qualified paramedics would attend to a life-threatening or cardiac arrest call early in their career to enable them to start to improve self-efficacy, self-concept and they would start to be accepted into the group. They would focus on building professional relationships with colleagues which would improve their standing in the group. This would lead onto them being likely to receive the kind

of informal, peer feedback that they desire which further enhances self-efficacy. This process would reduce the uncertainty and anxiety and would enable them to navigate their changing identity with support from the established group, and the process would be less turbulent. However, the evidence presented has shown how social identity theory, in particular individuals taking on the behaviour and language of social groups, is a process that can perpetuate problematic cultures. Although there will undoubtedly be positive and negative cultures across UK ambulance services, national reports have highlighted a general culture which allows things like bullying and sexual harassment to occur. The National Guardian (2023) has highlighted problems with individuals speaking up about unprofessional and dangerous behaviour for fear of retribution. Although this thesis primarily sought to understand the experience of newly qualified paramedics and the turbulence that they may face, there are important considerations around the transition process in terms of cultural change and upholding personal moral values. Some participants in this thesis were ostracised from the group for upholding their own moral framework. A key consideration when discussing the ideal pathway through this process is how to ensure that newly qualified paramedics feel comfortable at work, receive support of the established paramedics in a way that they are able to bring their own individuality to the role and stay true to their own values and standards. We want to create a safe passage rather than a rite of passage. This consideration will form part of the recommendations in the next section.

6.10 What next?

Part of Health Education England's (2018) RePAIR project found that there is a need to improve clinical confidence amongst newly qualified healthcare professionals. Although this group did not include newly qualified paramedics, a Health Education England (2021) report titled "understanding anxiety and self-confidence in clinical decision-making" looked at the issues of anxiety and self-confidence in newly qualified paramedics. The report concluded that there was a need to strengthen preceptorship and to give newly qualified paramedics the opportunity to rehearse decision-making. This thesis highlights more fundamental issues around identity that

newly qualified paramedics face which causes turbulence and issues around self-efficacy. The next section will present specific areas that could be addressed, as a result of this thesis, to improve the transition period for newly qualified paramedics. It will make recommendations for the preceptorship period for newly qualified paramedics, the pre-registration curriculum for student paramedics and where further research can be utilised to support interventions.

6.10.1 A Case for Peer Group Supervision

The newly qualified paramedic preceptorship programme (National Health Service Employers 2017) sets out the national principles for supporting newly qualified paramedics in ambulance services. They highlight that formal reviews of progress will happen at least every six months. In this study participants received reviews from their managers, however they generally felt that the focus was too much on meeting targets and not enough on clinical care and the psychological aspect of caring. It also left little time or focus for bringing other issues to the meeting which may support the newly qualified paramedic's journey. For many, the feedback they received through this formal process was substantially less useful than the informal and often unsolicited feedback that they received from peers. Of course, for those who were ostracised from the group this sort of informal, constructive and positive feedback was lacking. Therefore, there needs to be a mechanism within the newly qualified paramedic programme that allows time for the sort of feedback that participants in this study felt like they wanted, that enabled enough flexibility to be able to seek support for any aspects of the role which they are finding difficult, and which is inclusive and helps everyone to build positive, healthy relationships with others. A potential solution to this is group supervision.

Clinical supervision, identified as an intervention provided by a more senior member of the profession to a more junior member of that profession (Bernard and Goodyear 2004), has been a normal part of practice in other health and social care professions for decades (Golia and McGovern 2015), but is at an embryonic stage in the paramedic profession. A report by the Association of Ambulance Chief Executives (2021) highlights a need for clinical supervision to be embedded within ambulance

service structures nationally. However, there is a focus on the clinical aspects of reflecting on practice and not much emphasis on the benefits that supervision could bring to the newly qualified paramedic above and beyond that. This discussion emphasises underpinning challenges to the newly qualified paramedic around identity and socialisation and there is a missed opportunity to tackle these issues within a clinical supervision framework. The review meetings which participants in this study received could be described as clinical supervision. However, Milne (2007) challenges this definition as too broad and suggests their own empirical definition based upon a systematic review of definitions, “The formal provision by qualified healthcare practitioners of an intensive, relationship-based education and training which is case-focussed and which directs, supports and guides the work of colleagues” (Milne 2007). The pertinent aspects of this definition which are important to this argument are that supervision is relationship-focussed (which supports the social support aspect of resilience) and that there is not necessarily a need for seniors to undertake supervision but acknowledgement that supervision could be delivered by peers.

The idea of peer supervision has been around for a long time. Borders (1991) argues that peer supervision can provide a supportive environment and show participants that others’ are feeling the same concerns. Additionally, they have been shown to increase self-efficacy because peers speak the same language and model achievable skill levels (Borders 1991). Counselman and Weber (2004) argue that peer support is particularly useful for those practitioners who are new and “testing their wings”. It provides a safe space to share concerns and has been shown to decrease burnout. They also point to the social nature of peer supervision providing friendship, allowing for self-appraisal and improved self-efficacy (Counselman and Weber 2004). Golia and McGovern (2015) point towards the professional camaraderie that enables practitioners to feel safe, less anxious and develop confidence in their ability. Additionally, their literature review highlighted how participation in peer supervision enabled “self-supervision” skills and that this in turn improved their ability to negotiate their evolving professional identity. Participants in this thesis point to informal social support as important to support their resilience. Mills and Swift (2015) demonstrated how a peer supervision group supported this informal support structure, within the confines of a structured peer support group.

Despite these apparent benefits, there is a lack of definitions of peer supervision and a lack of understanding of the outcomes of these groups (Martin et al. 2018). Martin et al. (2018) point to potential medico-legal issues about novices providing support to each other about potentially complex cases and that these have not been adequately evaluated. However, there does seem to be compelling evidence that peer group supervision could support newly qualified paramedics in building social support structures, improving self-efficacy and starting to consider issues of identity.

There is little consensus on the structure of peer support groups. Literature suggests that some form of structure is important for these groups. There are some common important points across studies that should inform the peer group supervision. The size of the groups should be small (between three and eight) and that they should meet regularly (varying between weekly, bi-weekly and monthly) in order to build relationships (Borders 1991, 2012; Mills and Swift 2015). Some aspects were different between formats. Some structures had a facilitator whereas some groups were self-facilitated. Some had shared objectives whereas some had no objectives and participants could talk about whatever they wanted (Mills and Swift 2015). Some had a structured format of how the peer supervision session would run whereas some had no agenda (Borders 2012).

Much of the literature presented thus far has been in the field of psychology and social work, where clinical supervision is well established. There have recently been studies looking at the implementation of peer group supervision within healthcare fields. A qualitative systematic review of peer group supervision in nursing found many benefits to participants (Tulleners et al. 2023). There was found to be professional growth, professional learning, a developing trust with the group and shared experience. Developing trust with the group enhanced the opportunity for social support and a shared experienced meant that participants realised that other people were going through similar things to them, and that this was comforting. Additionally, the shared experience of knowing that someone understood what they were going through lead to increased confidence and self-efficacy (Tulleners et al. 2023). These outcomes of professional learning as well as building confidence, self-efficacy and social support are important aspects to the participants in this thesis and would support their transition to practice. Another study explored the perceptions of peer group supervision on a cohort of nurses. They found that as well as the group

helping with a myriad of clinical-focussed improvements, it also helped with their sense of social cohesiveness with their peers and provided a route of support for the nurses (Saab et al. 2021). This outcome of peer group supervision seems to be a much more structured, positive and professional way of receiving much of the support that many participants in this thesis received from the group. However, receiving this support through peer group supervision is an inclusive and value-positive way to achieve the same outcome.

A resilience-based clinical supervision model was developed to support student nurses transition to the workforce (Stacey et al. 2017). This was in part in response to Health Education England's (2018) RePAIR report which highlighted a concerning level of attrition amongst pre-registration and newly qualified nurses. This resilience-based clinical supervision model aimed to support newly qualified nurses' emotional coping skills. They found that those who took part in this intervention reported greater tools for self-care, greater confidence and emotional intelligence (Stacey et al. 2020). This is promising in supporting the emotional turbulence of entering the workforce for newly qualified practitioners, however it focusses solely on personal resilience rather than the underpinning issues that this thesis has highlighted that cause challenges to resilience, such as those issues around identity. Peer group supervision is better focussed on peer group supervision that builds social support, trust, professional identity, and self-efficacy as detailed previously.

A peer support framework has been developed and implemented on paramedic students. The CARES Skills Framework is a structured peer support framework which enables participants to receive support from peers. Two studies on Australian student paramedic cohorts have identified that it supports paramedic students to enhance their emotion-focussed coping (Pinks et al. 2021) and enhances their sense of belonging, and participants felt validated and heard by peers which supported their wellbeing (Flanagan et al. 2022).

Peer group supervision can create a safe space for peers to share concerns, and often they feel validated by knowing that others' have had similar experiences. There's evidence that it improves self-efficacy, issues of professional identity, and social cohesiveness and support. These are issues identified by participants of this study and so using peer group supervision may help to meet their needs in a

positive, inclusive and structured way. Further research is needed to understand the optimal structure of peer group supervision.

Implementation of an intervention into an organisation has challenges. Not least in the current context of the ambulance service where demand is higher than ever and resources are low. Peer group supervision is much more acceptable to organisations because it is a low resource intervention when compared to one-to-one clinical supervision (Mills and Swift 2015). This is largely because there is no requirement for a trained facilitator (Counselman and Weber 2004). Evidence presented suggests that groups would need to meet regularly (at least once per month), and groups would need to be consistent and small. There may or may not be a benefit from having a structure, although there are two programmes presented (resilience-based group supervision and the CARES skills framework) which do provide structures and have been shown to have benefits in different ways.

Further research is required to clarify and test peer group supervision structures in the context of newly qualified paramedics from both a feasibility point of view and to understand the effects of any model on the specific issues that are raised in this thesis.

6.10.2 Pre-Registration Curriculum and the Hidden Curriculum

Socialisation to the profession starts when students begin their pre-registration curriculum (Devenish et al. 2016). It is during this formative period that students start to form an idea of the realities of paramedic work. They start to understand the culture in which they will be required to operate when on clinical placement. Therefore, when they start as a newly qualified paramedic one must acknowledge that they are not starting from zero, they have had three years of socialisation and enculturation where they've been able to start to grapple with issues that they are now facing (Devenish et al. 2016). Therefore, it is important in this thesis to consider the role of the pre-registration experiences in the experiences of the newly qualified paramedic.

6.10.2.1 Hidden Curriculum

The hidden curriculum is when informal, subtle and almost invisible learning occurs away from formal teaching mechanisms (Phillips 2013). In paramedic practice this has been highlighted particularly during clinical placements, where paramedic mentors may oppose and discredit university education and where students are exposed to cultural norms that may be opposed to university and/or personal values (McKenna and Williams 2017). This is reported to often result in personal behaviour change for those experiencing the hidden curriculum without them being aware of it (Phillips 2013). The dilemma for student paramedics going into clinical placement is much the same as for newly qualified paramedic entering the workforce, and is summed up well by (van der Gaag and Donaghy 2013):

> "Newcomers are caught in a dilemma. On the one hand they need to engage in the existing practice, which has devolved over time, to understand it, to participate in it, and to become full members of the community in which it exists. On the other hand, they have a stake in its development as they begin to establish their own identity in its future'."

This passage shares similarities with the argument around social identity in this thesis. The established group are a powerful force for student and newly qualified paramedics and they fundamentally have a role in shaping their identities. The challenge for educators of student paramedics is how to deliver education to the students that supports the positive framing of identity and supports their learning in the clinical environment without negative effects of enculturation.

Neve and Collett (2018) demonstrated mitigating steps that can be taken to manage the hidden curriculum in medical education. They ran a one-off session on the hidden curriculum and then asked students, whilst on clinical placement, to record two instances where they identified the hidden curriculum: one where they thought the message was positive and one where they thought the message was negative. They argue that asking the students to be aware of, and reflect upon, the hidden

curriculum helped to mitigate the negative effects of it. Paramedic curricula could employ a similar approach.

There are many potential hidden curriculum agents. Paramedics in practice as part of clinical placements have been described above. Other agents include educators, senior students, university, as well as society more widely such as family, friends and media (Lautensach 2013). Whilst many of these agents are difficult to influence, educators should reflect on whether there are elements of hidden curriculum which are negative. Most university lecturers on paramedic science programmes originated in ambulance service work and so the language and behaviours of that culture may carry over into the teaching environment. Reflecting upon the author's education experiences there are some elements of the curriculum and the way it is delivered which may have a negative hidden curriculum effect on students.

McCann and Granter (2019) highlight the importance of uniform and insignia to the ambulance culture. Within the university setting sometimes lecturers wear ambulance uniform when teaching practical aspects of the programme. This can be problematic to students who are still grappling with the professional and role identity of a paramedic. In a context where many paramedics do not work within an ambulance service, or wear uniform, there is a hidden signalling to students about the identity of a paramedic being only legitimate if they wear a uniform.

There are elements of programmes which are highly practical and there is sometimes a tendency for educators to "drill" students on practical skills, rather than giving them an opportunity to explore how to perform skills, reason about when and when not to use certain skills. McCann and Granter (2019) identifies the militarised nature of the ambulance service which is hierarchical. Indeed, when training of paramedics was an in-house model the training was very hierarchical in nature. However, in higher education this should not be the case. Lecturers should guide students in solving their own problems. Making sessions hierarchical in nature reinforces the militarised expected culture for students and they may start to accept it rather than thinking critically about culture.

Earlier sections talked about the impact of role identity. That is, considering what the unique role is of a paramedic. Participants in this study inferred that attending to cardiac arrests and life-threatening calls are what makes a paramedic uniquely a

paramedic. The discussion challenges this idea of a paramedic. However, pre-registration curricula are designed so that the management of cardiac arrests features proportionately very heavily. For example, students will normally undertake a practical exam to demonstrate managing a cardiac arrest, whereas for managing a person with a mental health crisis this would receive a much lower proportion of teaching and almost certainly would not have its own assessment. This signals to students what the institution thinks about the role of the paramedic and what is important as a paramedic. So it is perhaps not surprising that newly qualified paramedics enter the workforce with this view of the role that the hidden curriculum has demonstrated to them. As much as literature has found ways to get students to reflect on the hidden curriculum, it is incumbent on educators to look critically at curricula and learning and teaching practices to understand the indirect results of a hidden curriculum. This includes rebalancing the curriculum to accurately reflect the expectations of the paramedic, such as urgent and primary care presentations.

6.10.2.2 Pre-Registration Curricula and Identity

There is some evidence of supporting the development of professional identity in pre-registration curricula. In medical education, evidence emphasises the importance of clinical placements on moulding identity. Students move from observing identity, to imitating, to changing identity (Wilkins 2020). Literature emphasises the importance of the relational aspect of identity. That is, the importance of relationships with peers and professionals in the formation of professional identity (Johnson et al. 2012; Wilkins 2020). This idea of identity formation and the importance of relationships is echoed in the writing around social identity theory earlier in the chapter. Johnson et al. (2012) also reiterate the importance of professional identity on self-concept, and the sense-of-self. This literature reiterates what Devenish et al. (2016) found in their cohort of paramedic students, that socialisation in clinical placement is a big driver in enculturation. However, the issues identified around culture of the ambulance service may suggest that this formation of professional identity may not always be the desired type of identity formation. Educators needs to find a way to help students to form their professional identity in a way that upholds professional values, is inclusive and supports wellbeing. Cruess et al. (2015) asserts that role models are critical in helping students develop a professional identity.

Students look towards role incumbents to understand behavioural expectation. Those educators that role model positive behaviour help students to imagine themselves in positive roles, and vice versa. Educators need to understand how to be positive role models and to be transparent with students about their thoughts and behaviours to give the student the opportunity to learn from their actions. Curricula needs to be designed to formally address issues of identity and socialisation in teaching and learning activities. Curricula also needs to include teaching and learning activities around student paramedics' own wellbeing. This thesis argues that teaching around identity, socialisation and wellbeing is linked so student paramedics understand the link between these factors and wellbeing.

However, it is acknowledged that educators in the university setting are not as powerful role models as those in the clinical setting because students see those in the clinical setting as bona fide practitioners (Wilkins 2020). Paramedic pre-registration programmes need to engage with practice educators in clinical practice to ensure that as part of their preparation for educating they understand the importance of their behaviour on the development of students' professional identity, and understand how professional identity formation is largely a socialisation process. Supporting students to navigate these professional identity issues in a positive way early in their progression may make the transition less turbulent.

6.11 Conclusion

6.11.1 Recommendations

The transition from student to newly qualified paramedic is turbulent. The newly qualified paramedic preceptorship programme is designed to support this transition but there is scant consideration of the emotional turbulence that newly qualified paramedics go through during the first year of work. Interventions need to be built into the preceptorship period so that newly qualified paramedics receive regular, proactive (rather than reactive) support. It is suggested that peer group support is a

low resource and well evidenced intervention that can be built into preceptorship programmes that could support the transition to the workforce in a positive, inclusive and resilience-promoting way.

Pre-registration paramedic curricula could start conversations with students early about the hidden curriculum. Getting them to reflect on areas where they encounter the hidden curriculum, and whether its messages are positive or negative, is the first step in mitigating the effects of negative messaging from a hidden curriculum.

University educators needs to reflect on the unintended messaging that they convey through their language, behaviours and through curriculum design as part of the hidden curriculum. A critical look at the messaging from educators throughout students' education can help to mitigate unintended consequences, particularly in relation to their developing identity.

Pre-registration paramedic curricula needs to overtly consider the formation of identity as soon as the students starts a paramedic programme. Engaging with practice educators in clinical practice, and ensuring positive role modelling, will help to enable students to navigate an identity early and in a positive way. This may make the turbulence around identity issues in the transition period less pronounced

6.11.2 Further Research

The literature review chapter showed how there is literature looking at issues paramedics face around their resilience. It highlighted how patient-facing aspects of the role impact upon resilience and cause issues such as post-traumatic stress disorder and burnout. This thesis has highlighted the issues that newly qualified paramedics face in their transition to the workforce around their resilience. Although some of these factors are related to patient-facing duties, there is an underpinning and fundamental process of a changing identity which is at the root of these difficulties. There is very little research into these factors. Further research needs to

focus on the development of identity in student paramedics and newly qualified paramedics, and in developing and evaluating peer support supervision interventions to support the transition for newly qualified paramedics, as discussed below.

There needs to be a more mature conceptual understanding of what the professional and role identity of a paramedic is. Evidence from nursing literature, a more mature profession, shows us that it is difficult to find a unified idea of a diverse profession. However, our understanding of what a paramedic *is* and what a paramedic *does* is still heavily influenced by the 1990s context of the paramedic. Researchers, academics, educators and professional staff need to work on conceptualising the paramedic, and we must acknowledge that the conceptualisation of the paramedic is likely to be unique to the UK context. This will help to make the journey from student to paramedic more clearly signposted for newly qualified paramedics and will underpin the career for paramedics.

The idea of a hidden curriculum is well established in education and healthcare education literature. There is not much evidence around the presence and impact of the hidden curriculum in paramedic student education. This thesis has emphasised the importance of and the impact of socialisation and the social group in forming identity in newly qualified paramedics. Research needs to focus on understanding the hidden curriculum within undergraduate paramedic education and the effect that this has on identity. Evidence has been presented which demonstrates that the hidden curriculum can provide positive role modelling as well as negative effects, so research needs to understand how to harness the hidden curriculum for positive framing of paramedic identity.

The under-graduate curriculum for paramedics does not routinely include issues around identity. This could be a something that is focussed upon in the curriculum, and something that underpins the pedagogy for paramedics, so that newly qualified paramedics have already started to navigate this changing identity by the time they enter the workforce. There is a paucity of literature around the professional identity of paramedics. There is also a paucity of literature around how paramedic negotiate their identity at the beginning of their undergraduate journey. Research is needed to explore conceptualisations of the identity of paramedics, and identity formation in the formative years at university.

The discussion has considered how peer group supervision could be used to support newly qualified paramedics in developing social support and identity formation with all the benefits that that provides. The literature identifies many ways that this could be structured and delivered, but it has not been well explored in a paramedic context. Research could look at models for delivering peer group supervision and the feasibility of including this intervention in the newly qualified paramedic preceptorship programme to ensure that all newly qualified receive this intervention.

6.11.3 Original Contribution to Knowledge

This study is unique in its' approach to studying the phenomena of socialisation and resilience in newly qualified paramedics and in the design of the study. This is the first study that has used a mixed-methods design to understand the experiences of newly qualified paramedics and the effect that those experiences have on their resilience.

This study is also the first study that has explored the experiences of newly qualified paramedics in a longitudinal way. Devenish et al. (2016) explored the experiences of newly qualified paramedics in Australia and the United Kingdom. To do this they interviewed different paramedics who were at different stages of their career. This thesis uniquely followed the same participants over the course of a year to illuminate and emphasise the journey of newly qualified paramedics.

This study is also the first to explore the experiences in newly qualified paramedics specifically in relation to resilience. Therefore, the findings of this study add a unique and original contribution to knowledge. There are some similarities with the findings from Devenish et al. (2016), such as the importance of fitting in with colleagues. However, this study has uniquely highlighted the centrality of the role of identity in the actions and experiences of newly qualified paramedics. It has uniquely used the framework of social identity theory to underpin and explain why the social aspect of participants' experiences are so fundamental to negotiating their identity and impacting their resilience.

6.11.4 Limitations

There are aspects of this study that may be viewed as limitations.

The quantitative data are analysed descriptively. This was because the sample size was not large enough to allow for meaningful statistical analysis of quantitative data. Were the sample size larger than more inferences may have been able to be made from quantitative data. Additionally, those inferences that are made from quantitative data should be viewed with caution because of the small sample size. The justification for the sample size was justified in chapter three, and centres around the fact that the qualitative aspects of this study is dominant and therefore the sample size is drawn from consideration of qualitative literature. Additionally, the longitudinal aspect design of the study meant that data was collected three times from each person and larger samples may have made the qualitative data unmanageably large.

The small sample size from one ambulance service affects the generalisability of the findings to the wider newly qualified paramedic population. The purpose of the study was not to have a sample that was representative of the wider population, or a sample size that was large enough to claim generalisability. Instead, the study sought to illuminate in depth the experiences of participants. However, the discussion chapter has discussed the findings alongside wider literature and how the findings of this study build on what is already known about the experiences of newly qualified paramedics. This can help to guide further research.

Constructivist grounded theory emphasises the position of the researcher in co-constructing meaning with participants. For this reason preconceptions can infiltrate and affect the construction of meaning and this may be viewed as a limitation. Steps have been taken throughout the thesis to try to mitigate this and make the position and preconceptions of the researcher overt. Chapter one positions the views of the researcher, and so does the reflective section at the end of each chapter. Additionally, chapter four identified the memo-ing used by the researcher to bracket misconceptions.

6.11.5 Review of Aims and Research Questions

This study sought to understand the transition experiences of newly qualified paramedics and the effects of their experiences on their resilience. To achieve this it sought to answer three research questions which will be reviewed:

1. *What are the experiences of newly qualified paramedics as they transition from student to paramedic?*

Chapter five describes the experiences of participants over the first year of their career as a paramedic in the ambulance service. It shows how their experiences were centred around a changing social, professional and personal identity. The centrality of identity to their experiences is demonstrated in the main theory. It explains how attending to a high acuity call, such as a cardiac arrest, was very important to participants in the first few months' of their work. Just as important during this period was how they were viewed by colleagues, and they prioritised relationships with colleagues as a vehicle to understanding and negotiating their changing identity. They valued informal feedback from colleagues, much more than the more formal feedback from managers, and their relationship with colleagues facilitated this and enabled it to happen which improved their self-efficacy.

These aspects were core elements of their experiences, but chapter five also highlights the differences in experiences of individual participants. There were different pathways and experiences that individuals had within these commonalities.

Chapter six linked many of these experiences to social identity theory and the importance of social identification in understanding identity. This chapter also discussed professional identity, issues around the overriding notion of role identity within paramedics and the difficulties that this can cause in understanding identity. Self-concept was explored and the importance of being a paramedic to participants' personal identity, that is was fundamental to their sense-of-self.

2. *What factors are important in affecting the resilience of newly qualified paramedics?*

Chapter five highlights how the changing identity of participants' caused turbulence for them and was at the heart of issues around resilience. Some participants who did

not attend a high acuity call early in their career experiences anxiety and sleep disturbances, and generally poorer resilience. Once they had attended these sorts of calls this improved both symptoms and their resilience scores.

Their relationships with colleagues was also an important factor in their resilience. Those that were accepted by colleagues experienced improvements in their resilience. Those that were not accepted by colleagues found this experience particularly turbulent.

As a result of these relationships, those that received informal feedback form colleagues felt improved self-efficacy and self-concept, and this helped to build their professional identity, which made their journey less turbulent.

Chapter six discussed this process through the frame of social identity theory, and explained why fitting into the group was so important for the resilience of newly qualified paramedics. The study concluded that issues around navigating this new identity was at the core of issues around resilience experienced by participants.

3. *What recommendations can be made to support the transition of newly qualified paramedics in supporting resilience?*

Acknowledging that a changing identity is at the core of issues around resilience, chapter six explored interventions that could support newly qualified paramedics in exploring and navigating their changing identity.

A case for group peer supervision was presented, where participants are able to receive support from others' who are going through the same experiences. Evidence was presented showing how this type of intervention has helped those in other professions in considering many of the issues identified by participants.

Evidence was also presented about what could be done during the pre-registration education of student paramedics to start to understand their changing identity. Part of this is a consideration of the socialisation into the practice environment and a critical look at the role of the hidden curriculum by university and practice educators.

6.12 Final Personal Reflection on the Thesis

Chapter one described my experiences as a paramedic, an educator, and a researcher. It described my desire to produce a meaningful thesis that really understood the experiences of newly qualified paramedics and how they could be better supported through the process.

The thesis has had an impact on the way that I think about my experiences in the ambulance service. The process of listening to participants' experiences and putting that alongside wider literature has helped me to understand why I often felt like I did not quite fit in within the ambulance service. This is largely down to the culture and an unwillingness to capitulate to that culture to the extent that the established group expected.

As an educator I have an increased empathy for our final year students who are entering the workforce as paramedics. I feel like I intimately understand the challenges that are ahead of them, and at times I worry about the effect those experiences will have on them. I feel hopeful that this thesis has identified some interventions that could help students transition to newly qualified paramedic, and I hope to continue my research in this area to make a meaningful difference to students and newly qualified paramedics.

As a researcher I have developed many skills which will enable me to continue my research journey. Interestingly, there are parallels between the experiences of participants in this study and my own feelings as I progressed through this research. I experienced lots of self-doubt. At the start of this journey I was unsure about my ability to construct this study and to pull the whole thesis together. Many times throughout this journey I have had crises of doubt where I have been unsure of whether what I am writing is valid and sound. Whilst writing up this thesis there have been occasions where I have felt that I would not be able to finish, and that I was not capable of putting the thesis together in a coherent manner. It was only the support from supervisors and university colleagues that gave me belief that I was able to complete this thesis. As I consider the experience of participants in this study I recognise the feeling of being an imposter and of not feeling like a bona fide researcher.

I have developed skills in engaging with the wider academic and professional community about my research. I have published some of my findings in a peer-reviewed journal. I have delivered oral and poster presentations about my work at different points along the research journey. I have been convinced by the reaction of academic and professional colleagues to my work that this research topic is of importance to the paramedic profession. This has motivated me to keep going on this journey when I have had self-doubt and wondered if in fact I was capable of completing this thesis.

I have learned about the importance of networking to research activities. Through conversations with colleagues and engagement with the wider community I have met many researchers, academic and professionals who have similar interests and have helped to inform my thinking about the topic. I can see how collaboration in research can help to refine ideas and help research have more impact.

One of the biggest challenges has been managing my other commitments around progressing this research. This PhD has been undertaken alongside my full-time lecturing role which has meant that I've had to juggle those two responsibilities. I have found that demands on my education role as a lecturer often felt more urgent and sometimes resulted in deprioritising working on the thesis. As time progressed, I managed to strike a better balance between education and research, but often felt guilt at not attending to the other aspect at the time.

A particular challenge was the COVID-19 pandemic in 2020. At this stage I had completed data collection and was analysing and starting to write up the thesis. However, as a lecturer on a paramedic programme there was an urgency to navigate student progression through to graduation so that the workforce needs could continue to be met despite recurrent lockdowns and restrictions. This took a lot of my time and the whole of that year I found it difficult to make significant progress on the PhD.

I have realised that there are multiple challenges that need to be navigated when conducting and writing up research and the ability to manage different demands on my time is something that I have improved upon throughout this process.

Overall, when I reflect on the thesis that I have written I am pleased that I believe I have highlighted important experiences of participants. I am hopeful that I can continue the research in this area and that my research will have a positive effect on newly qualified paramedics.

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Appendix 1: Published Article

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Crossing the 'flaky bridge' – the initial transitory experiences of qualifying as a paramedic: a mixed-methods study

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Abstract

Introduction: Newly qualified paramedics (NQPs) may experience emotional turbulence as they transition to professional practice. This may negatively affect confidence and have an adverse effect on attrition. This study highlights the initial transitory experiences of NQPs.

Methods: The study utilised a mixed-methods convergent design. Qualitative and quantitative data were collected simultaneously and triangulated to more fully interpret participants' experiences. A convenience sample of 18 NQPs from one ambulance trust was used. The Connor-Davidson Resilience 25-point Scale questionnaire (CD-RISC25) was administered and analysed using descriptive statistics. Semi-structured interviews were conducted simultaneously and analysed using Charmaz's constructivist grounded theory approach. Data were collected from September to December 2018.

Results: There was a range of resilience scores, with a mean of 74.7/100 (standard deviation 9.6). Factors relating to social support were scored highly, and factors relating to determinism and spirituality were scored lower. Qualitative data constructed a process whereby participants were navigating a new identity across three spheres simultaneously: professional, social and personal identity. Attending a catalyst event such as a cardiac arrest was a trigger for starting to navigate this process. Participants had different pathways through this transitional period. Participants who found this process particularly turbulent seemed to have lower resilience scores.

Conclusion: The transition from student to NQP is an emotionally turbulent time. Navigating a changing identity seems to be at the centre of this turbulence, and this is triggered by a catalyst event such as attending a cardiac arrest. Interventions which support the NQP in navigating this change in identity, such as group supervision, may improve resilience and self-efficacy and reduce attrition.

Keywords
emotions; paramedic; resilience; self-efficacy; socialisation; transition

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Introduction

The pathway from student to qualified healthcare practitioner can be difficult, with several studies identifying the initial transitory period as being a particularly emotionally turbulent time (Devenish et al., 2016; Duchscher, 2009; Kennedy et al., 2015). For example, people may encounter a 'shock' when their conceptions, and perhaps even idealised views, of their profession meet the 'reality' of healthcare practice, and on discovering that their beliefs may be in conflict with values in the world of work (Devenish et al., 2016; Kramer, 1974). Those undergoing a process of adjustment to new roles and new organisations often describe experiencing disorientation, foreignness and sensory overload (Louis, 1980, 1983). Health Education England (2018) acknowledged that newly qualified healthcare practitioners have a 'rollercoaster of experiences and confidence levels during their first year of employment'.

There are currently concerns about the recruitment and retention of healthcare practitioners in all areas across the United Kingdom, with initiatives such as the Reducing Pre-Registration Attrition and Improving Retention (RePAIR) project (Health Education England, 2018) seeking to address issues of attrition in nursing and allied health professions. Health Education England used the term 'flaky bridge' to describe the experience of newly qualified practitioners during the initial period of transition and socialisation from healthcare student to practitioner (Health Education England, 2018). This project found that there is a need to decrease anxiety and increase confidence in clinical decision making among newly qualified healthcare practitioners. A report looking at newly qualified paramedics (NQPs) highlighted that they are likely to be facing the same difficulties (Health Education England, 2021). At the start of their clinical career, NQPs can be unsure that they can manage patients in a safe and effective way. They may have doubts about their own ability, or perceived self-efficacy, which if not understood and supported may have an impact on their resilience and contribute to attrition (Health Education England, 2021). It is claimed that this experience of transition shock may impact the attrition of many NQPs (Kennedy et al., 2015).

The transition to becoming a paramedic has been documented by Devenish et al. (2016), who described the phases of socialisation for paramedics in Australia, noting that further research is needed to understand the underpinnings of transitory shock experienced by many NQPs. In this study, we highlight the experiences of NQPs as part of their initial journey across the 'flaky bridge', and in so doing capture the emotional turbulence of their transitory experiences.

Methods

Study design

A mixed-methods convergent study design was used. Qualitative and quantitative data were collected simultaneously, in order to view participants' experiences from two angles and triangulate findings. Qualitative data constructed meanings of participants' experiences and quantitative data provided insight into the quantifiable aspect of those experiences, providing a basis for comparing participants. In this way, the transition journey could be understood more fully than any one method could provide.

The quantitative element of this research studied a snapshot of the resilience of participants as a basis for further illuminating the qualitative findings, and a basis for comparison between participants.

The qualitative element of the study followed a constructivist grounded theory approach (Charmaz, 2014). Grounded theory is an inductive process that seeks to construct theory about issues that are important to people's lives (Corbin & Strauss, 2008). Grounded theory mainly describes an approach to analysing data, in which there are no pre-conceived ideas or hypotheses. There is a process of conceptualising and constantly comparing data to data, and concept to data, to ensure theories that emerge are grounded in the data (Glaser & Strauss, 1967). Constructivist grounded theory differs from earlier versions of grounded theory because it asserts that theories are not discovered in the data, rather researchers construct, and co-construct, theories through interactions with people, perspectives and research practices. This identifies the researcher as part of the process, not an objective observer but a co-creator (Charmaz, 2014). Rigour was ensured by assessing credibility, originality, resonance and usefulness (Charmaz, 2014).

The study was weighted towards qualitative methods, with quantitative data used to reveal further insights arising from participants' experiences. Quantitative resilience scores were considered alongside the individual participants' pathway through the transition process, and compared to other participants. This allowed researchers to gain further insight into the extent to which their specific experiences may impact resilience. For example, two participants might have very different pathways through the transition process, and triangulating these experiences with resilience scores provides an insight into pathways which may support or reduce resilience. Furthermore, researchers were able to compare question-level scores on the resilience scale which, when triangulated with qualitative findings, may identify specific areas of resilience that are of importance to the cohort.

Participants

The sample size was drawn largely from consideration of the qualitative aspect of the study. Quantitative data were not intended to be analysed statistically, and not intended to be generalisable. Constructivist grounded theory literature emphasises the need for judgement when considering sample sizes (Charmaz, 2014). Although fewer participants may have sufficed, it is difficult to know this at the outset of the study. A slightly larger cohort also allowed for any reasonable attrition from the study to not impact the development of a theory.

A single NHS ambulance trust was contacted to approach NQPs in their trust. Convenience sampling was used, with potential participants approached at their corporate induction. Participants were eligible if they were an NQP taking up their first post as a paramedic. Potential participants were given information sheets at the induction and asked to sign and return a consent form by email if they wish to take part in the study. Once the consent form had been returned, the principal researcher contacted the participant by email to arrange the interview.

Data collection and analysis

Data were collected between September and December 2018 because NQPs started their employment during this period.

Quantitative data were collected using the Connor-Davidson Resilience 25-point Scale (CD-RISC25) (Connor & Davidson, 2003). This questionnaire is a self-assessment of resilience. Participants respond to 25 statements on a Likert scale from 0 (not true at all) to 4 (true nearly all of the time). Marked out of 100, a higher score indicates higher resilience and a lower score indicates lower resilience. Examples of items included in this questionnaire are: 'I have at least one close and secure relationship', and 'When things go wrong sometimes fate or God can help'. CD-RISC 25 has a good reliability and validity. It has a high construct validity, with those scoring high on CD-RISC being less likely to develop post-traumatic stress disorder (Mealer et al., 2016) and suicidality (Liu et al., 2014). It has a high test–retest reliability (Connor & Davidson, 2003) and acceptable convergent and divergent validity (Karaırmak, 2010).

Participants were given time to complete the questionnaire on a computer immediately before the interview took place, without the researcher being present. The questionnaire was completed online using the Bristol Online Survey. Quantitative data were analysed descriptively using SPSS version 28. The Shapiro–Wilk test of normality was used to establish normal distribution.

Qualitative data were collected using semi-structured interviews lasting roughly 1 hour. Interviews were conducted at the individual participants' ambulance station in a private room. They were conducted face to face, audio recorded and transcribed verbatim.

Interviews were analysed initially using initial line-by-line coding, with a focus on making codes action-based (Charmaz, 2014). Focused coding then took place, which is a process of identifying initial codes that appear frequently or have particular significance within the data, and grouping and synthesising codes to form analytical and conceptual ideas. Focused codes were constantly compared to data to ensure that the coding accurately accounted for the experience of participants. Memos written by the researcher were used as an informal process to capture thoughts about data and comparisons between data. Memos are used as an informal adjunct to coding, providing a space for the researcher to converse with themselves. Memo-writing helps to crystallise ideas, understand links between ideas and raise the analytical level of analysis (Charmaz, 2014). Diagramming was undertaken to raise the analytical level of the codes and move towards theory generation, which is a core outcome of grounded theory. Diagramming is the process of representing theories in visual form, and helps to form more concrete ideas and understand relationships between ideas (Charmaz, 2014). NVivo Pro 12.5 was used to transcribe and code interviews. Memos and diagrams were handwritten.

The primary researcher discussed qualitative and quantitative findings with the co-author, helping to ensure that the theory was grounded in the data and offering perspectives on the mixing of the qualitative and quantitative findings.

Positionality statement

In constructivist grounded theory approaches the researcher is not a neutral observer. The researcher is part of the research process and co-constructs meaning from participants' interviews. Researchers have preconceptions which can affect different aspects of the research, but a particular risk is forcing preconceived ideas into the analysis of data.

The principal researcher is an experienced paramedic, an experienced lecturer at a higher education institution and a PhD candidate. As a paramedic he had experience of dealing with the same stressors that the participants may be dealing with. His experience with educating paramedics could cause preconceptions about the issues that the participants may be facing, and these preconceptions may impact the questioning during interviews and interpretation of the data. To mitigate the risk of this occurring, the principal researcher wrote informal memos about their experiences as an NQP, as an educator and as a researcher. This made implicit preconceptions explicit to the researcher so that the memos could be revisited at different times during the data collection and analysis. To reduce the risk of preconceptions erroneously affecting data, the researcher undertook constant comparison of initial codes to data, focused codes to data and data to data, that is, at each step of analysis ensuring that initial codes and focused codes accurately represent participants' experiences as seen in the data, and that codes and the theory are accurate when applied across multiple participants as a form of cross-checking. However, one must acknowledge the subjectivity of the qualitative analysis, accepting that there may be multiple interpretations which accurately account for participants' experiences.

Ethics

During interviews, participants were at risk of recalling upsetting events. To mitigate this, the researcher had

agreed with the ambulance trust that participants would be given information of their staying well service. All participants were given this information. Participants were made aware that if the researcher thought the participant was an immediate risk to themselves or others then confidentiality would be broken in order to inform the employing trust of concerns. The participant would be informed that this would happen.

Participants were free to withdraw from the study at any time without penalty, but data collected up until the point of withdrawal would still be anonymised and used in the study.

Results

There were 18 participants: eight males and 10 females. Self-reported demographic data can be seen in Table 1.

Quantitative results

The mean CD-RISC score was 74.7 out of 100, with a standard deviation (SD) of 9.6. Scores ranged from 58 to 88 out of 100. The Shapiro–Wilk test of normality had a significance of 0.064, showing a normal distribution of data. All participants were within two SDs. See Figure 1 for a histogram showing the frequency of CD-RISC scores.

Mean scores for each question can be seen in Table 2. Two questions that relate to social support had the highest mean score (close and secure relationships), with all participants scoring 4, and the third highest score (I know where to turn to for help). This highlights that participants across the spectrum of resilience scores felt they had good social support.

Table 1. Participant demographics.

Demographic category	Number of participants (%)
Sex	
Male	8 (44.44)
Female	10 (55.56)
Age	
21–25	7 (38.89)
26–30	5 (27.77)
31–35	3 (16.67)
> 35	3 (16.67)
Marital status	
Single	11 (61.11)
Co-habiting	6 (33.33)
Separated	1 (5.56)
Sexual orientation	
Heterosexual	18 (100)
Ethnicity	
White British	16 (88.89)
Other	2 (11.11)
Disability	
No	17 (94.44)
Yes	1 (5.56)

The third question, relating to believing in fate or God, received the lowest average score of 0.83. The second lowest score was feeling that things happen for a reason (2.28). Both of these questions relate to spirituality, faith and determinism/fatalism in Connor and Davidson's (2003) factor analysis, of which the cohort seem to

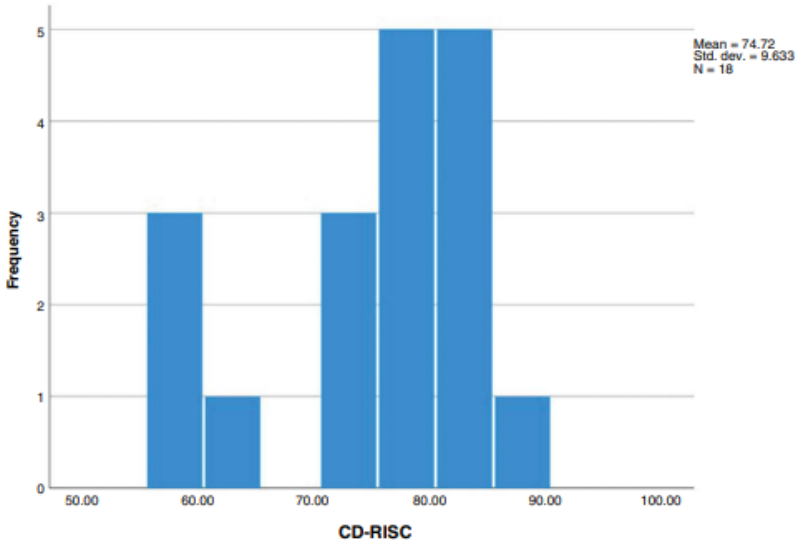

Figure 1. Histogram showing frequency of CD-RISC scores.

Table 2. Mean CD-RISC response per question (ascending order).

CD-RISC topic	Mean response score*
Sometimes fate or God can help	0.83 (SD 1.20)
Things happen for a reason	2.28 (SD 1.27)
Prefer to take the lead in problem solving	2.44 (SD 0.78)
Not easily discouraged by failure	2.56 (SD 0.92)
See the humorous side of things	2.67 (SD 1.03)
Have to act on a hunch	2.72 (SD 0.75)
Strong sense of purpose	2.83 (SD 0.99)
Make unpopular or difficult decisions	2.89 (SD 0.76)
I like challenges	3.06 (SD 0.73)
Can deal with whatever comes	3.06 (SD 0.87)
Coping with stress strengthens	3.06 (SD 0.72)
When things look hopeless, I do not give up	3.11 (SD 0.47)
Under pressure, focus and think clearly	3.11 (SD 0.83)
Can handle unpleasant feelings	3.11 (SD 0.90)
You work to attain your goals	3.11 (SD 0.68)
Past successes give confidence for new challenges	3.17 (SD 0.51)
In control of your life	3.17 (SD 0.92)
Able to adapt to change	3.28 (SD 0.67)
Think of self as strong person	3.33 (SD 0.77)
Pride in your achievements	3.33 (SD 0.77)
Tend to bounce back after illness or hardship	3.39 (SD 0.70)
You can achieve your goals	3.39 (SD 0.61)
Know where to turn for help	3.39 (SD 0.70)
Best effort no matter what	3.44 (SD 0.51)
Close and secure relationships	4.00 (SD 0.00)

*The mean response score is measured on a Likert scale from 0 (not true at all) to 4 (true nearly all of the time).

CD-RISC: Connor-Davidson Resilience Scale; SD: standard deviation.

generally reject the notion. The concept of working hard and giving their best effort no matter what (3.44) was the second highest score, which may indicate that the cohort identify with trying hard and giving things their best shot (internal locus of control) rather than relying on determinism or outside intervention (external locus of control).

Qualitative findings: 'navigating a new identity'

A theory was constructed around a central process ('navigating a new identity') (Figure 2). Navigating this new identity was carried out in three spheres simultaneously (professional identity, social identity and personal identity) and triggered by a catalyst event. Each sphere of identity had an influence on the other spheres after a catalyst event.

During this initial transitory period, there was a common experience among participants where they were trying to negotiate a new identity across three spheres, and this was an emotionally turbulent time. The early trigger for navigating a changing identity was whether they had attended a catalyst event. A catalyst event referred to a callout that was a high-acuity, high-stress situation where the patient was suffering from a life-threatening illness/injury. The most commonly cited call was attending to a patient who was in cardiac arrest.

Professional identity

Before attending a catalyst event, participants described a lot of self-doubt that they were able to perform adequately as a paramedic:

> I do worry about going to my first cardiac arrest as a paramedic [. . .] That is my biggest fear until I get that job. So I don't know what's going to happen. I think that that is my biggest worry. (SP55, CD-RISC score: 84)

It was difficult for them to identify as a paramedic when they were so fundamentally unsure if they were able to perform what they perceived to be the key facets of the role.

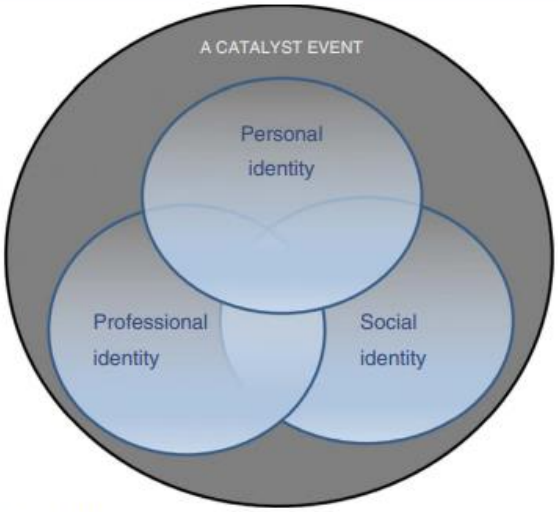

Figure 2. Navigating a new identity.

Participants identified that attending to a critically unwell patient, particularly cardiac arrests, was a key constituent of the professional identity of the paramedic. As such, they placed a lot of weight on the ability to cope with this kind of callout:

> your cardiac arrest is one [. . .] that is most associated with paramedics, so knowing that I can do that . . . was quite a nice moment. I'd earned my stripes. I can do this. (JT67, CD-RISC score: 84)

Participants who had attended to this type of callout described an increase in self-efficacy and a feeling that they now felt like a legitimate paramedic:

> it is one of the biggest jobs a paramedic attends to and sort of what a paramedic is expected to go to, that kind of emergency and knowing that I'm able to achieve what I need to achieve as a newly qualified paramedic, it was a really big boost of confidence. (JT67, CD-RISC score: 84)

> [talking about a patient who was critically unwell that they managed] Well it made me feel like 'yeah I actually can be a paramedic, I'm not so bad'. (PD85, CD-RISC score: 88)

Conversely, for those participants who had not attended a callout of this nature, they were not able to start to reconcile their new professional identity. There was an emotional vulnerability and self-doubt that manifested as anxiety and sleep disturbance:

> Well, I never sleep well. Never sleep well. And, you know, you wake up a couple of hours before your alarm goes off. And you know, or you take a long time to get sleep and things like that. (FH35, CD-RISC score: 76)

> I've still not attended or run a cardiac arrest on my own. That scares the life out of me, absolutely. And I guess when I think of the anxiety and the panic, that's what drives it. (RN21, CD-RISC score: 58)

Interestingly, participant RN21 had the lowest CD-RISC score (58), highlighting that the emotional turbulence that they are describing as a result of not attending a cardiac arrest may be having a detrimental effect on resilience.

Social identity

Attending a catalyst event as an NQP also had an effect on participants' developing social identity. Participants felt that following a catalyst event they had gained the respect and approval of their ambulance colleagues. This process describes how going through this rite of passage can essentially make the participants 'one of the group'. One participant highlights how colleagues' attitudes changed towards her after they attended a child who suffered a cardiac arrest:

> And all of a sudden when I worked with other people their attitudes changed. It sounds horrible that it took a baby to die to gain a bit of respect, which is horrible isn't it. (BN54, CD-RISC score: 71)

Participants indicated that until they had attended a catalyst event they did not feel like they were part of the group and colleagues would act differently towards them than a more established member of the group. One participant reflected on how they were treated before attending a cardiac arrest and how they were treated subsequently, as a bona fide member of the group, which typifies many participants' experiences:

> when you're new, people kind of just ignore you. And now everyone's like chatting to you more like, oh, how's your day going? They kind of include you, which is quite nice. (BE47, CD-RISC score: 77)

Results from the resilience questionnaire show that social support is a facet of resilience that heavily supports all participants' resilience (close and secure relationships and knowing where to turn for support). Being accepted into the wider group ensures that participants will receive social support as part of in-group behaviour, further strengthening resilience.

Some participants had experiences with colleagues that stopped them from being accepted into the group. One participant had a disagreement with another paramedic, which escalated and seemingly resulted in the established group making work-life very difficult for the participant, and demonstrates typical out-group behaviour:

> But they are watching me and waiting for me to make a mistake. That was really stressful, really stressful. I also had other ECAs refuse to do shifts with me, which is also quite stressful because that reaffirms to other people that I'm a really horrible person. (PD85, CD-RISC score: 88)

Another participant acknowledged the rite of passage in order to be accepted by colleagues but rejected the notion of it. They did not accept that they should have to prove themselves to their colleagues:

> There's enough pressure on my shoulders, generally with the job, it's quite a pressured job to have to prove myself to my crewmates through another shift. (CH32, CD-RISC score: 60)

When faced with a series of difficult interactions with colleagues, this participant was not willing to go against their values just to be validated by the established group:

> Like I'm not here to make enemies. But [I'm also] not here so everyone can come around my house for a cup of tea every day. (CH32, CD-RISC score: 60)

> But if someone introduced themselves to me like that, that kind of rudely, I would say inappropriately to be honest. Just put me on the wrong foot completely to start with and I just lost all respect for them. It was clear that the way they spoke to me meant they had zero respect for me from the start either. (CH32, CD-RISC score: 60)

Participant CH32 had one of the lowest CD-RISC scores (60), which may reflect the difficulties faced around social identity and its effect on resilience.

The transitory experience of participants here is of colleagues (the established group) watching participants' performance over the first few months of their employment, and either accepting them into the group, affirming their professional identity as a paramedic, or not accepting them into the group, resulting in a lot of stress for participants, who may feel like an outsider. Some participants were unwilling to follow the established social norms in order to fit in, particularly where doing so would go against their core values. But for the majority of participants, how they were viewed by the established group had a direct effect on how they viewed themselves professionally and personally.

Personal identity

This change in identity caused some participants to question their sense of self. Being a paramedic was not just part of their evolving professional identity, but was a part of who they are as a person:

> The problem is that being a paramedic is what I am now, it's everything I've been working for, so if I can't do that then I'm not really sure who I am. (RN21, CD-RISC score: 58)

The emotional turbulence, for some participants, caused a friction between the way the world viewed their identity and the way they viewed themselves. One participant in particular summed up the experience of many:

> They all view me as 'the paramedic' as if that's what I am, but I sure don't feel like a paramedic, I'm not even sure I can do it. So then what am I? (FW99, CD-RISC score: 61)

Therefore, the challenges faced in navigating professional identity and social identity, and the emotional turbulence that is evoked, affected their fundamental sense of who they are in the world.

Discussion

The initial transitory period of NQPs, as they cross their professional 'flaky bridge', is indeed an emotionally turbulent time. The present study shows how a changing identity is at the centre of this turbulence. The findings showed a mean CD-RISC score of 74.7. During this transition period, participants were navigating a new identity across three spheres: professional, social and personal identity. This was triggered by a catalyst event, most commonly attending to a cardiac arrest.

There is limited published CD-RISC data from similar cohorts of paramedics for comparison. Two existing studies which used CD-RISC on paramedic populations found mean scores of 73.8 (SD 15.1) (Froutan et al., 2017) and 65.06 (no SD or range given) (Fjeldheim et al., 2014). Another study applied the CD-RISC to a student paramedic population with a mean of 72.6 (SD 13.2) (Safori et al., 2021). The cohort in the present study demonstrated similar mean resilience to two of the above studies, and greater resilience than the other. Direct comparisons are difficult because existing studies researched paramedics and student paramedics in different countries (Iran, South Africa and Australia) who may face different types of stressors.

Locus of control is the extent to which people feel they have control over events in their lives. The two poles are internal and external locus of control, and

people will sit on this continuum. Internal locus of control is where people feel their lives are dictated by their own intent, ability or purposefulness. External locus of control is where people feel their lives are dictated by outside forces, randomness, other people or a higher power (Shanava & Gergauli, 2022). Questions relating to determinism/fatalism had the lowest cohort mean scores, therefore highlighting that the cohort generally rejected an external locus of control. Those questions relating to control had high mean scores, suggesting that the cohort generally sit more towards an internal locus of control on the continuum. Studies have found that an internal locus of control is protective against adversity and associated with greater resilience (Cazan & Dumitrescu, 2016; Montes-Hidalgo & Thomas-Saturday, 2016; Munoz et al., 2017; Rajan et al., 2018).

Transitional anxiety is perhaps inevitable when entering professional practice. There may be an existential anxiety when we are unsure of a new world we are entering into (Neimeyer, 2001). Membership of social groups can ease some of this anxiety, therefore it is natural that NQPs should seek out support from more experienced paramedics (Brown, 2000).

Social identity theory describes how membership of groups is a significant source of pride and self-esteem. It is posited that people strive to achieve and maintain a positive social identity, and that this drives self-esteem (Brown, 2000). Participants demonstrated how social support enhanced their resilience in the quantitative data, and social identity with the in-group is likely to support this further. Evidence demonstrates how group membership and a feeling of belonging to a social group has been shown to reduce the risk of stress-related disorders such as burnout (Avanzi et al., 2015), can increase resilience (Koni et al., 2019) and increases self-efficacy (Avanzi et al., 2015), which can help to give confidence to the NQP.

Role identity theory describes how someone occupying a role within society builds an identity around that role by adhering to its key functions and attributes (Mausz et al., 2021). Dealing with a catalyst event cements their own feeling of professional identity. Moreover, the role of a paramedic in society is seen as significant and important, and as such the attributes and identity of 'paramedic' can be so salient that they become an important part of personal identity and sense of self (van Ingen & Wilson, 2017). The role identity of a paramedic is about more than a set of skills, it is a framework of values that underpins the paramedic (Reed et al., 2019). Therefore, it is inextricably linked to personal values and personal identity.

It is interesting that many participants identified life-threatening calls, such as a cardiac arrest, as the catalyst event which would trigger them to navigate their identity. Life-threatening calls, including cardiac arrests, make up an extremely small proportion of ambulance work in the United Kingdom (Henderson et al., 2019). Patients experiencing chest pain, difficulty in breathing and abdominal pain are much more frequent calls (Henderson et al., 2019) which paramedics are required to manage. However, participants did not talk about these types of incidents as helping them to negotiate their new identity. Indeed, the scope of paramedic practice is broad, with paramedics working in many healthcare and non-healthcare environments other than the ambulance service, so it is difficult to identify and define the role of a paramedic (Williams et al., 2022). Further research could focus on whether framing the paramedic role more clearly during the education of paramedics (such as underpinning values) may support their transition, or whether participants' view of paramedic practice enables NQPs to better navigate their new identity.

Health Education England's (2018) RePAIR project identifies that there is a need to increase clinical confidence to reduce attrition. This study shows that for NQPs there is a more fundamental social process at play that is making their transition emotionally turbulent. Supporting NQPs to navigate the identity change may increase self-efficacy, increase resilience and reduce emotional turbulence. These factors may, in turn, help to reduce attrition.

Clinical supervision for NQPs could support their transition and alleviate some of the emotional turbulence. Stacey et al. (2020) implemented a group resilience-focused supervision model in a cohort of newly qualified nurses. They found that it supported participants' feelings of belonging and validation, which may support a developing identity. Francis and Bulman (2019) identified the benefits of group supervision in a cohort of hospice nurses in supporting resilience, particularly in improving self-awareness of emotions and self-efficacy. Wallbank (2013) demonstrated how group supervision can have a wider effect on resilience, increasing compassion satisfaction and reducing burnout and stress in a small cohort of health visitors. The evidence suggests that group supervision could help with developing a social identity, developing a strong professional identity and improving self-efficacy, among other beneficial effects. A barrier to delivering supervision is the clinical and operational pressures that staff face, and the need to educate supervisors/facilitators in how to manage group supervision. Delivering group supervision is more time effective but would still need investment from employing organisations. Further research could consider and test models of supervision in the context of NQPs.

To prepare NQPs for the transition to practice, institutions that educate paramedics could consider how issues around identity could be supported during the programme. Encouraging students to reflect on the role identity of the paramedic and the important aspects of professional identity may help to prepare students for the challenges during the transition period. Curricula may need to be altered to consider how issues of identity are embedded, discussed and role-modelled throughout the education programme (Johnston & Bilton, 2020), making identity an overt aspect of programmes. There is a paucity of literature on this topic.

Limitations

Quantitative data were analysed descriptively, therefore inferences made would require further research using bigger samples to interpret them fully in the context of the wider NQP population. The study describes the experiences of 18 participants from one ambulance trust, therefore caution should be exercised in generalising the findings to other ambulance trusts.

Conclusion

The transition to NQP is emotionally turbulent, as paramedics navigate a new identity. This new identity is fundamental to their sense of self, and interventions to support NQPs in navigating this turbulent period may improve resilience and self-efficacy and reduce attrition.

Author contributions

PP designed and conducted the study, gained ethics approval, transcribed and analysed interviews and prepared drafts for submission. ST supported the design of the study, helped with context and theory of analysis and prepared drafts for submission. PP acts as the guarantor for this article.

Conflict of interest

None declared.

Ethics

Ethical approval was granted by HRA (ID 224086) and Bournemouth University (ID 16624). Sponsorship and approval from the ambulance trust's research and development department was gained as part of the HRA ethics process.

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Appendix 2: Data Extraction Table

Study	Key points (context, introduction)	Aims of Study	Study Setting	Sample and Sampling Approach	Data Collection Methods	Data Analysis Approach	Key Themes	Conclusions	Assessment of Quality (CASP Qualitative tool)
Qualitative									
Williams (2013a): The strategies used to deal with emotion work in student paramedic practice	**Emotion Work Lack of research on this phenomenon Research looks at trauma**	Strategies used by paramedic students to deal with emotional demands of practice	Large university in UK	8 participants, DipHE PS Sampling strategy not mentioned	Semi-structured interviews. Pilot study done	Coding and thematic analysis	**2 main themes:** **Talking it through** Friends/colleagues Partners/family Mentor **Humour**	Personal tutor support, CM support, student counselling support	High
Williams (2013b): A study of emotion work in student paramedic practice	**Emotion Work Lack of research on this phenomenon Research looks at trauma**	Paramedics' perceptions and experiences of emotion work in practice (sample are students)	Large university in UK	8 participants, purposive sample DipHE PS	Tape recorded semi-structured interviews. Pilot study done	Coding and thematic analysis	**3 main themes:** **Getting on with the job** Control and suppression of emotion Got to deal with it Don't see them as a person/patient **Struggling with emotion** Not sure what to say Personal Links Stop myself crying	Education needs to focus on emotional aspect of care Emotion work is important component of student paramedic practice	High
Clompus and Albarran (2016): Exploring the nature of resilience in paramedic practice: A psycho-social study	**Resilience as internal and external factors that enable paramedics to deal with negative experiences. Not an inborn trait**	How do paramedics 'survive' their work?	UK ambulance service (one region)	Self-sampling Technician, paramedic or ECP 7 participants	Free Associated Narrative Interviewing. Lasts 60-90 minutes. Tell 'story of their life' Then semi-structured interviews lasting 45-60 minutes	Coding and thematic analysis. Summary of findings verified with participants	**4 main themes:** **Motivation to become a paramedic** Caring and excitement Early life encounters **Workload pressures** Impact of health service reforms Health and social care systems Humanising moments and connections	Range of stressors faced by paramedics. Paramedics use an armoury of coping strategies. Formal support mechanisms for paramedics need to be reviewed.	High

							Coping and resilience Management support Informal peer support and humour Detaching and blocking **External support** Support from family/friends Referral to outside agencies		
Scott (2007): Expression of humour by emergency personnel involved in sudden deathwork	**Humour as a human activity. Serves a social function. Unites people and serves as stress reducing mechanism**	Nature of expression of humour in paramedic, police and ED nurse.	3 ED departments in N. England.	Unclear on sampling approach. Mix of ED nurses, traffic police and paramedics. Unsure of numbers	Nine focus groups. Unsure of the mix of focus groups	Coding and categories using NUDIST NVivo	**7 sub-themes under Expression of Humour:** Quick-witted quips (used most) Twist in the tale Moral to the story Vulture mentality Ironic expressions Cadaver rhetoric Censoring humour expression	Humour enables emergency personnel to function during sudden deathwork	Low/Medium
Quantitative									
Study	**Key points (context, introduction)**	**Aims of Study**	**Study Setting**	**Sample and Sampling Approach**	**Data Collection Methods**	**Data Analysis Approach**	**Key Themes**	**Conclusions**	**Assessment of Quality**
Shepherd and Wild (2014): Cognitive appraisals, objectivity and coping in ambulance workers: A pilot study	**PTSD, depression and anxiety high. Distancing, humour, reappraisal and objectivity may help**	Is positive appraisal and objectivity associated with better coping after *traumatic events*	London Ambulance Service	Self-selected sample 45 ambulance workers (18 paramedic, 27 technician)	2 parts: PDS and BDI Asked to consider two callouts and complete an appraisal questionnaire based on the two	Descriptive statistics and one tailed t-tests (hypothesis directional) Pearson's correlation coefficient calculated to show size of effect	**Appraisal** Positive appraisal associated with coping better (small-moderate effect) Negative appraisal done less when coping well (moderate to large effect) **Objectivity** Better objectivity associated with better coping (moderate to large effect)	Cannot necessarily infer cause and effect. Training in cognitive appraisal may be useful Further research to enhance methods of objectivity	High
Johnson et al. (2005): The experience of work-related stress across	**OccupationalStress is a significant factor amongst UK workers.**	Provide information on physical health, psychological wellbeing and job satisfaction	Questionnaire across occupations	These questionnaires had already been completed by occupations	ASSET questionnaire. Specifically interested in 'your job', 'physical health' and 'psychological	Not much information	Physical Health, wellbeing and job satisfaction are significantly related. **Ambulance workers:** Physical Health - first Wellbeing – fourth	High stress occupations have been identified, more work is needed to fully explain these findings	Medium

occupations	**Prolonged stress can lead to physical and mental health issues**	across 26 occupation types			wellbeing'		Job satisfaction – second Emotional labour may be a big factor, however it is more compact than that		
Wild et al (2016): A prospective study of pre-trauma risk factors for post-traumatic stress disorder and depression	**MD and/or PTSD can occur after exposure to trauma. Certain traits may predispose paramedics to MD/PTSD. Some of these are modifiable. By identifying modifiable factors, resilience training could be used to improve resilience**	1. Investigate whether new recruits are at risk of developing PTSD or MD 2. Investigate whether episodes of PTSD or MD predict poorer wellbeing at 2 years 3. Identify variables that can be assessed before exposure to trauma that predict who will develop an episode of PTSD or MD	London Ambulance Service	New recruits in training to LAS. 453 participants (96.6%) Purposive sampling Baseline interview and questionnaires Every 4 months completed questionnaire Interviewed at 12 and 24 months to identify exposure to trauma	**BASELINE** **Psychiatric history** Structured interview **Exposure to Trauma** Life Events Checklist **Dissociation** Trait Dissociation Questionnaire **Neuroticism** Eysenck Personality Questionnaire **Anxiety Sensitivity** Anxiety Sensitivity Questionnaire **Perceived Resilience to Stress** CD-RISC **Attitude to Emotional Expression** Attitudes to Emotional Expression Questionnaire **Depressive Attributions** Depressive Attributions Questionnaire **Maladaptive Post-Traumatic Cognitions** Posttraumatic Cognitions Inventory **Cognitive Responses to Memories of**	Point-biserial correlations to calculate associations between predictors and PTSD/MD	**Episodes of PTSD/MD** 8.3% had episode of PTSD 10.6% had episode of depression **Health Outcomes** Those who developed PTSD or MD showed poorer overall wellbeing **Predictors of PTSD/MD** Psychological Traits (dissociation, neuroticism) Cognitive Risk Factors Responses to Stressful Events (suppression, rumination, numbing) Avoidance styles of Coping Low Social Support		High

					Stressful Events Responses to Intrusions Questionnaire **Coping Styles** COPE Questionnare Ways of Coping Scale **Social Support** Crisis Support Scale **AT 2 YEARS** **Alcohol and Drugs** AUDIT **Days off Work** Self-reported **Weight Changes** Selg-reported **Smoking** Self-reported **Burnout** MBI **Insomnia** Insomnia Severity Index **Quality of Life** Quality of Life Enjoyment and Satisfaction Questionnaire				
Bennett et al. (2005): Associations between organisational and incident factors and emotional distress in emergency ambulance personnel	**Emotional distress prevalent. Dissociation may contribute to PTSD**	Measure prevalence of PTSD, Depression and Anxiety. Identify contribution of person and work factors t severity of each measure	Large UK Ambulance Service	Questionnaires sent to all 1029 EMTS/Paramedics in large ambulance service.	Anonymous questionnaires: Ambulance Work Stressors Questionnaire HADS PDS Cognitive Appraisal Questionnaire	Descriptive statistics Pearson's correlations Regression analysis, t-tests	**Emotional Distress** 2/3 have had troubling memories in work – more paramedics than technicians PTSD – F 15%, M 23% Depression – 10% Anxiety – 22% **Work-related Stress** Women reported less incident-related stress **Severity of PTSD** All the following were independently	Incident factors not the biggest factor in PTSD development Organisational factors are important and should be considered by trusts.	High

							associated with more severe PTSD: Organisational factors Frequency of traumatic events Length of service Dissociation at the time of incident **Caseness** Organisational factors is significant predictor of PTSD caseness **Associations with Anxiety and Depression** Most significant variables were: Work-home conflict Tension with colleagues Unpredictable nature of work Incidents involving children		
Hutchinson et al 2021: The Role of Lifestyle on NHS Ambulance Workers' Wellbeing	**Sleep is most important lifestyle factor in developing MH problems**	Explore the role and impact of lifestyle on ambulance workers	4 ambulance trusts in England	Survey 160 participants	Validated measure of anxiety, depression, stress and PTSD	Bivariant analysis	**Sleep is single most important lifestyle factor in developing MH problems**		High
Beldon and Garside (2022): Burnout in Frontline Ambulance Staff	**Over 50% of staff reported burnout. Management structure, poor worklife balance, forced overtime were blamed.**	Presence of and contributory factors to burnout	Two-phased design. MBI and CBI, then open ended questions on questionnaire	MBI/CBI and qualitative questionnaire. 382 participants	MBI/CBI and qualitative questionnaire	Comparative analysis of quan data. Thematic analysis of qual data	**Over 50% of staff reported burnout. Management structure, poor worklife balance, forced overtime were blamed.**		Medium

Appendix 3: Participation Information Sheet

Bournemouth University

Participant Information Sheet

IRAS Reference: 224086

The title of the research project

What are the factors that affect resilience among newly qualified paramedics in the U.K. NHS ambulance service?

You are being invited to take part in a research project. It is important that you understand why the research is being done and what it will involve before you decide whether or not to take part. Please take the time to read the following information carefully and contact me if there is anything that is not clear or if you would like more information. My contact details can be found below. I will contact you over the next 2 weeks to see if you wish to take part or not.

Who is organising/funding the research?

This research is part of a PhD study and is being funded by Bournemouth University

What is the purpose of the project?

Paramedics are regularly exposed to a variety of stressors such as critical incidents, pressure to achieve targets, autonomous working and being exposed to human suffering. Evidence suggests that Post-Traumatic Stress Disorder amongst paramedics could be as high as 22%. Paramedics also seem to suffer from high levels of anxiety, sleep disturbance, substance misuse and suicide when compared to the general public. The strategies that paramedics use to try to cope with stressors has not been well explored. Similarly, there are many paramedics who are resilient to occupational stressors and little is known about how they remain resilient. This research aims to explore resilience in paramedics and answer these research questions:

- What do newly qualified paramedics identify as occupational stressors?
- What do newly qualified paramedics do to manage occupational stressors?
- What are the factors that affect resilience in paramedics?

Why have I been chosen?

You have been chosen as a potential participant because you are a newly qualified paramedic who has taken employment with either the London Ambulance Service or South Western Ambulance Service. This study aims to recruit 20 participants in total: 10 from each ambulance service.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a **consent form**). You can withdraw at any time, up to the point of data being anonymised without it affecting any benefits that you are entitled to in any way. You do not have to give a reason. Deciding to take part or not will not impact upon or adversely affect your employment with the ambulance trust.

What would taking part involve?

The study will last for 2 years. In that time you will receive a questionnaire to complete electronically every 6 months, and you will be interviewed every 6 months.

The questionnaire will be delivered to you electronically and you will complete it online. It will take about 20 minutes to complete. You will complete the same questionnaire 5 times (every 6 months) over the course of the 2 year study.

Interviews will last for about an hour and will take place at a trust location that is convenient for you. Travel expenses will not be paid. The interviews will be one-on-one with the chief investigator and will consist of around 5 open questions. They will take place 5 times (every 6 months) over the course of the study.

This is a mixed methods study which aims to objectively measure resilience and to understand about the context of resilience in your day-to-day work. You do not need to prepare anything before answering the questionnaire or coming to the interviews because you will be asked about your experiences.

If you leave the ambulance service, or your role changes within the ambulance service, you will be removed from the trial. All anonymised data collected until that point will be included in the study. You will be asked to take part in an exit interview before you leave. You are not obliged to do the exit interview.

What are the advantages and possible disadvantages or risks of taking part?

Some of the questions in the interview might ask you to recall difficult memories from calls that you have dealt with. If you are becoming upset then the interview will be paused until you feel able to continue. Also, you will be reminded that you do not need to carry on or answer questions if you do not wish to.

Whilst there are no immediate benefits for you participating in this research, it is hoped that this study will help us to better understand the stress that ambulance staff face, and the factors that affect how resilient paramedics are. It is hoped that this can inform the paramedic curriculum and ambulance trusts in building resilience and wellbeing.

How will my information be kept?

All the information that we collect about you during the course of the research will be kept in accordance with the Data Protection Act 1998. You will not be able to be identified in any reports or publications. All personal data relating to this study will be kept for 5 years on a BU password

protected secure network. Personal data and anonymous identifiers will be kept in separate files on the secure network which only the chief investigator will have access to.

Except where it has been anonymised, we will restrict access to your personal data to those individuals who have a legitimate reason to access it for the purpose or purposes for which it is held by us.

The information collected about you may be used in an anonymous form to support other research projects in the future and access to it in this form will not be restricted. It will not be possible for you to be identified from this data.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

You will be asked to complete a demographic questionnaire at the start of the study. This information will be useful in analysing the results to detect any differences in resilience based upon demographics.

You will be asked to complete a resilience questionnaire every 6 months for 2 years. In addition, you will be interviewed by the chief investigator at the same time intervals. This strategy of collecting data will help us to understand the nature of resilience in newly qualified paramedics.

Will I be recorded, and how will the recorded media be used?

The audio recordings of your activities made during this research will be used only for analysis and the transcription of the recordings for illustration in conference presentations and publications. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. Recordings will be put on a secure electronic file and the original recording on the recording device will be deleted. This electronic file will be kept until the end of the study.

Feedback

You will be able to receive the results of the study and you will be asked if you want to receive personal feedback from your personal results. If this is the case the chief investigator will ask you how you wish to be contacted in order to arrange for feedback. Personal feedback will be descriptive. It will not interpret the results to reach clinical conclusions.

Contact for further information

If you have any questions about the study then please contact:

Peter Phillips, Chief Investigator

Email: pphillips@bournemouth.ac.uk

Tel: 01202 962759

In case of Complaints

If you have any concerns regarding this study, please contact:

Professor Vanora Hundley,

Deputy Dean for Research and Professional Practice,

Faculty of Health and Social Science,

Bournemouth University.

researchgovernance@bournemouth.ac.uk.

Finally

Thank you for taking the time to read through this information sheet. I will contact you in the next 2 weeks to see if you want to take part in the study. If so, I will ask you to sign and return the consent form to me. If you have any questions in the meantime then please do not hesitate to contact me.

Appendix 4: Participant Agreement Form

Bournemouth University

Consent Form

Full title of project: What are the factors that affect resilience among newly qualified paramedics in the UK NHS Ambulance Service?

Name, position and contact details of researcher:
Peter Phillips, PhD Student, Bournemouth University, Room R509, Royal London House, Christchurch Road, Bournemouth, BH1 3LT
Email: pphillips@bournemouth.ac.uk Telephone Number: 01202 962759

Name, position and contact details of supervisor:
Dr. Steven Trenoweth, Senior Lecturer in Mental Health Nursing, Bournemouth University
Bournemouth University, Bournemouth House, Christchurch Road, Bournemouth, BH1 3LT
Email: strenoweth@bournemouth.ac.uk Telephone Number: 01202 961697

	Please Initial or Tick Here
I have read and understood the participant information sheet for the above research project.	
I confirm that I have had the opportunity to ask questions.	
I understand that my participation is voluntary.	
I understand that I am free to withdraw up to the point where the data are processed and become anonymous, so my identity cannot be determined.	
During the study, I am free to withdraw without giving reason and without there being any negative consequences.	
Should I not wish to answer any particular questions in the questionnaire or interviews, I am free to decline.	
I understand that if the researcher thinks I am at immediate risk of harming myself or others that they will have a duty of care to inform my employer.	
I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the outputs that result from the research.	
I understand taking part in the research will include being recorded (audio) but that these recordings will be deleted once transcribed.	
I agree to take part in the above research project.	

_____ _____ _____

Name of Participant	Date	Signature
_____	_____	_____
Name of Researcher	Date	Signature

Appendix 5: Letter of Permission for CD-RISC Questionnaire

Dear Peter:

Thank you for your interest in the Connor-Davidson Resilience Scale (CD-RISC). We are pleased to grant permission for use of the CD-RISC in the project you have described under the following terms of agreement:

1. You agree not to use the CD-RISC for any commercial purpose, or in research or other work performed for a third party, or provide the scale to a third party. If other off-site collaborators are involved with your project, their use of the scale is restricted to the project, and the signatory of this agreement is responsible for ensuring that all collaborators adhere to the terms of this agreement.

2. You may use the CD-RISC in written form, by telephone, or in secure electronic format whereby the scale is protected from unauthorized distribution or the possibility of modification. **In all presentations of the CD-RISC, including electronic versions, the full copyright and terms of use statement must appear with the scale. The scale should not appear in any form where it is accessible to the public, and should be removed from electronic and other sites once the project has been completed.**

3. Further information on the CD-RISC can be found at the www.cd-risc.com website. The scale's content may not be modified, although in some circumstances the formatting may be adapted with permission of either Dr. Connor or Dr. Davidson. If you wish to create a non-English language translation or culturally modified version of the CD-RISC, please let us know and we will provide details of the standard procedures.

4. Three forms of the scale exist: the original 25 item version and two shorter versions of 10 and 2 items respectively. When using the CD-RISC 25, CD-RISC 10 or CD-RISC 2, whether in English or other language, please include the full copyright statement and use restrictions as it appears on the scale.

5. A fee of $ 30 US is payable to Jonathan Davidson at 3068 Baywood Drive, Seabrook Island, SC 29455, USA, either by PayPal (at: mail@cd-risc.com), cheque, bank wire transfer (in US $$), international money order or Western Union.

6. Complete and return this form via email to mail@cd-risc.com.

7. In any publication or report resulting from use of the CD-RISC, you do not publish or partially reproduce items from the CD-RISC without first securing permission from the authors.

If you agree to the terms of this agreement, please email a signed copy to the above email address. Upon receipt of the signed agreement and of payment, we will email a copy of the scale.

For questions regarding use of the CD-RISC, please contact Jonathan Davidson at mail@cd-risc.com. We wish you well in pursuing your goals.

Sincerely yours,

Jonathan R. T. Davidson, M.D.
Kathryn M. Connor, M.D.

Agreed to by:

P A Phillips PETER PHILLIPS 30/6/17

Signature (printed) Date

LECTURER PARAMEDIC SCIENCE

Title

BOURNEMOUTH UNIVERSITY (UK)

Organization

Appendix 6: Interview Protocol

Interview Protocol

What are the factors that affect resilience among newly qualified paramedics in the U.K. NHS ambulance service?

Pre-Amble

Thank you for agreeing and continuing to take part in this study. You have been sent a questionnaire to complete electronically which I would be grateful if you could return over the next week or so. This part of the study is a semi-structured interview that asks you questions about your work as a paramedic, which I expect to take around 60 minutes.

Can I check that you are still happy for me to audio record the interview? If you need a break at any point then please let me know and I will stop the voice recording.

I want to remind you that you are not obliged to answer the questions and can withdraw from the study at any time with no penalty. Remember that the answers you give will be anonymised in the reporting of this study and I am the only person that knows the identity of participants.

If you feel you need any information about your trust's wellbeing services then I have a leaflet that I can give to you that outlines how to contact the service.

Interview Questions

1. Tell me about your experiences of being a paramedic at this point in your career.
    - Where have these expectations come from?

2. Can you describe for me a day at work *(for T1, a day at placement)* that went really well?
    - What enabled it to go well?
    - How did this make you feel?
    - Is this a typical day?

3. Can you describe a day that didn't go so well?
    - Why do you think this happened?
    - Is this a typical day?

4. Thinking of this day that didn't go so well, how did that make you feel
    - What has helped you to make sense of it?
    - What could help you if/when it happens again?

5. Do you experience stress at work?

If No – why do you think you don't experience stress?

If Yes – What stress do you experience?

How does this affect you?

How do you try to cope with this stress?

Exit interview (if participant leaves the ambulance service, changes role within the ambulance service or otherwise leaves the study)

Can you tell me about your reasons for leaving the ambulance service?

Appendix 7: Example of Initial Coding

Transcript	Initial Coding
So my next question is can you describe a day on placement that went really well. Um, I think most of the days went really well, but um, I'm trying to think of one that went particularly well. Um, especially in my last year I did pretty much everything, my mentor was quite happy for me to sort of take the lead and things so at times he was like 'right you know how to every job now so we'll take it in turns, we'll job about because you need to get used to sharing the workload a bit if you are with somebody else.' I think one day that did stand out was one of my last days and it was an arrest and we were going to another job which I think was abdo pain. We had just arrived but we hadn't made contact with the patient or anything, we were just looking for the address and a general broadcast came out and they said 'we've got a job in, i don't a few miles away, is anybody able to come clear and help out?' They had a truck running from 12 minutes and we were closer than them so I radioed them and said 'well we haven't actually made contact with the patient, do you want us to go?' They said 'Oh yeah, if that's alright, you are going to a cardiac arrest drowning' and, uh, that was a bit scary, because we'd already had a conversation that if we go to an arrest I'll be running it, and unfortunately throughout this year everyone that we had turned up to we were sort of second on scene so I couldn't run, kind of thing, but they then told me we were going to be first on scene which was a bit scary, knowing it was reversible cause already, probably very complicated and I'm first on scene and it was my first arrest running it and we're only on an RRV so, um, it was a bit scary but, um, we got there and it wasn't just a drowning, it was a hypo and a drowning so 2 reversible causes but, um, I had really good feedback for it and	Confidence in own ability Being given freedom to demonstrate ability Feels like mentor has confidence in her Experiencing the reality of the role Cardiac Arrest stands out Sense of needing to attend more serious call Taking responsibility for resources Feeling scared of attending first cardiac arrest Apprehensive as had not experienced this before Apprehensive of having to lead cardiac arrest Found the call more complicated than

it ran really well other than we couldn't intubate um, because just couldn't see the cords and even when we had a tube in the oesophagus when we put the bougie in there so the only thing that was left was the airway we still couldn't see, there was too much fluid and everything, but then the igel was working fine. And then another student from my year backed us up aswell and after he said I did really well aswell so it was kind of a really nice feeling towards the end of it that what I was doing was right and even the OO said I did well and um, another paramedic asked me what year I was in and was like 'oh no you were really good, you were swapping everyone around and you knew what was happening when and you were double-checking things' so I think that day probably stood out the most because it kind of, your cardiac arrest is one of your most, in a way your hardest job because there is alot to do and I think it is a job that is most associated with paramedics, um, so knowing that I can do it and there were 2 reversible causes, um yeah it was quite a nice moment. I can do this. **Yeah. You mentioned feedback from an OO that said you did well, a fellow student, how important was that feedback to your sense achievement, your sense of how well the call had gone?** I think, well I'm really really self critical and I have really high standards of myself so if I hadn't had that feedback I would have picked every single hole in what had happened, what I could have done differently, um, different things. And I was still doing that after the feedback but I felt more confident, especially coming from an OO who is sort of managerial, and I going to be working in the area that they are in and going to be my OO so its a nice feeling that, before I start he'll hopefully recognise that I am able, um, I think feedback is important for me, just because I am so self critical to sort of confirmation that you are doing OK, especially from people from different	thought initially Receiving good feedback from colleagues Not everything went according to plan Dealing with unexpected aspects of the cardiac arrest Receiving positive feedback from fellow cohort member Feeling validated from feedback Feeling assured from positive feedback Has dealt with the hardest type of call Feeling more like a legitimate paramedic Dealing with this call was a good feeling Can be highly self-critical Positive feedback moderating and over-riding own negative feelings Feedback increasing confidence Getting approval from managers for clinical performance Needing feedback for validation as paramedic

grades, like another student saying it feels like 'OK, well they're impressed with me' *(laughs)* and then again your managerial people. Yeah. **Yeah that all makes sense. What was it about that that enabled it to go so well?** the job? **Yes, why did it go so well?** I think, I don't know, I just felt at the time I knew when we were going in that it's such a high, tense moment going in, you don't know what you're going to find and I was like, kind of, aware of that. I think if I was a first year or a second year going in I would've gone in and gone completely tunnel visioned and um, as I was aware that that was a risk of me doing, especially with the drowning, um, and I did start to, I was focussing on the tube for a little while but I had insight in a way so I made sure that I set up ani gel ready incase it didn't, I couldn't get a tube, rather than just thinking' right I need to get the tube, I'm not going to look at anything else, I'm not going to prepare anything else' and then while I was doing it I was able to sort, of realise that I was taking a while with this I need to re-ventilate and sort of have a bit more of an external view of myself in a way, I don't really know how to explain it other than that but I was just more self-aware of things, pitfalls that I could have easily fallen into. but then again things did go not as well as they could've like when I first got there I did just focus straight on the patient and didn't get a 360 degree access but then at the end it wasn't actually a problem. Little things like that but generally I was just able to have a bit more of an insight maybe to, whereas in my third year going to quite a few arrests and seeing what's not gone well and knowing the common things that people are like, and focussing on the things that hadn't gone very well and not actually keeping an eye on everything else so I made sure, especially as there was a lot of people there that I knew what everyone was doing at each point, I think communication was probably another massive thing aswell. Um, and my mentor	Feeling pressure of being a paramedic Awareness of high pressure Awareness of clinical progression Able to take a broad view of clinical care Making contingency plans Problem-solving as clinical issues arose Reflecting in practice in real time Reflecting how far she has come in ability Reflecting on aspects that didn't go so well Some things not as problematic as they first seem Experience of high acuity calls helps Reflecting on avoiding common pitfalls Leadership role

trusted me, he took a real back seat once the other crew were there like he started compressions once we got the pads on and I was trying to sort the airway out and then he was just drawing up glucose for the hypo after, but um, he took a really backseat and I think that helped me sort of, I didn't feel like I was being watched all the time, if you know what I mean, and his trust sort of like gave me a bit of a confidence boost aswell. So, yeah. **OK. You said when I first asked the question that most days have gone really well, particularly in the last year I think you said?** Yeah. **So would you describe this day/this particular call that you are describing as typical, if this happened on another day do you think it would have gone as well?** Errr, I think so, I think so yeah. Other factors though may influence how well it went like time of day and things like that and how awake I was, um, and things, but I think generally, in my third year at least, um, probably not in my earlier years, but that's just experience and knowing what you've actually got to do. yeah I think generally. **So you're quite confident that if you attended a similar job again you would be able to cope in the same way, you would be able to treat the patient as well as you had that time? I'm just wondering why you've picked that particular call as something that went really well, um, is it because that was near to the end of your course and the feedback you received from that has given you confidence, or is it something else?** Yes it was mainly that, it was near the end of my course, it is one of the biggest jobs a paramedic attends to and sort of what a paramedic is expected to go to, that kind of emergency and knowing that I'm able to achieve what I need to achieve just before I start my job as a newly qualified paramedic it was a really big boost of confidence. **Yes OK thanks, that's really good.**	Many elements came together to ensure the scenario went well Feeling trusted by mentor Mentor took a backseat Feeling trusted gave her confidence in ability Being given freedom to thrive and demonstrate competence Has self-confidence that could perform like this again Experience builds confidence Feeling more confidence having experienced this situation Cardiac arrest associated with paramedic role Expectation that she should be able to deal with cardiac arrest Increasing confidence by managing this scenario Has dealt with the 'hardest job' so can deal with anything