# A Narrative Inquiry on Paramedic Preceptorship Experiences

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**Abstract**

This study adopted a narrative inquiry methodology in order to explore paramedic experiences and perceptions about their student preceptorship and their role as a preceptor. The questions that this research sets out to answer are: What are the experiences of practising paramedics in Ontario in their roles as preceptors? Additionally, what were the preceptor's experiences as students during their own preceptorship? There were six participants within the region of Ontario that took part in individual in-depth narrative interviews. In order to understand the data collected, a sociocultural theoretical framework was used, focusing on Rogoff's guided participation (2003). The findings revealed four main themes: i) the role of education in preceptorship, ii) the importance of interpersonal relationships, iii) the need for enhanced communication among institutional levels, and iv) the role of compensation in preceptorship. Taken together, the themes reveal the preoccupations and concerns of the paramedics who recounted their experiences both during their student preceptorship and as paramedic preceptors. All of the participants recommended further education and a modification to the current preceptor practises. They stressed the value of creating safe environments through good relationships with their students. The lack of communication between the paramedic service and educational bodies as well as between the paramedic service and the preceptors was also of concern to the participants. Finally, regarding compensation, the participants spoke about both the positive and negative aspects of compensation for the preceptor.

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## Acronyms and Abbreviations

ACP – Advanced care paramedic

ALS PCS – Advanced Life Support Patient Care Standards

ASA – Aspirin

ATLS – Advanced Trauma Life Support

BLS PCS – Basic Life Support Patient Care Standards

BTLS – Basic Trauma Life Support

CCP – Critical care paramedic

Code 3 – Prompt response determined by the call taker based on keywords

Code 4 – Urgent response with lights and sirens determined by the call taker based on keywords

CPAP – Continuous positive airway pressure

CVAD – Central venous access device

ECG – Electrocardiogram

PCP – Primary care paramedic

## Chapter 1 - Introduction

The objective of this study is to explore paramedics' perspectives and experiences in their roles as preceptors. The role of the preceptor has been defined as "a relationship for a fixed and limited time frame where the preceptor inspires and supports the growth and development of the student and encourages role socialization into the profession" (Charleston & Goodwin, 2004, p. 225). A preceptorship is defined as a structured learning and evaluation period in the clinical setting that matches students with experienced healthcare professionals for a specific period of time (Myrick, 1988). This topic holds importance due to the role preceptors take in assuring public safety through the kinds of instruction they give new trainees.

Paramedics are the first responders who arrive on scene to help those having a medical and/or psychological emergency. Paramedicine is an important area to study due to the enormous responsibilities' paramedics face in life-or-death situations and due to the rapid growth and changes that have occurred within the field over the last decade. In my recent experience of becoming a certified paramedic in Ontario, I learned that there are very few requirements to earn the title of preceptor, or mentor, the individual who teaches new paramedics on-the-job skills and competencies. While much of the medical training occurs through in-class courses, preceptorship is meant to focus on the communication and hands-on skills required for the job, as well as to put all the theoretical knowledge learned into practice.

During the process of learning how to be a paramedic in Ontario, students are required to shadow two practising paramedics during their 12-hour shift until the student reaches approximately 450-500 hours in order to complete their preceptorship. Paramedics work in teams of two and generally work with the same partner every day for an extended period of time. For this reason, one student is paired with two preceptors. This experience is meant to allow the paramedic student to learn in a controlled, supervised environment in order to gain the communication,

practical, and motor competencies necessary. The preceptors, who are randomly chosen and paired with the student, are sometimes required to have a minimum of two to three years of experience as practising paramedics, but this varies based on each individual paramedic service.

I have a personal interest in preforming this research, as I am currently a practising paramedic in Ontario. Over the last couple of years and throughout my own experience during student paramedic preceptorship, I have come to appreciate and recognize the value and critical role that paramedics play within a community. Given the central role that paramedics play on a daily basis in lifesaving efforts, there has been an increasing call for a closer study of the experiences of preceptors.

## Chapter 2 - Literature Review

In order to situate this research proposal within the history of paramedicine and the current practices, the review of literature will present: the history; the paramedic scope of practice in Ontario; the different systems of paramedic education in the UK, Australia, and Ontario; and lastly, research on paramedic preceptorship. Once there is an understanding of the type of research that has been done, a summary of what this literature means for my research will be presented. This literature review draws on peer-reviewed articles, mandated paramedic standards within Ontario, and information from the Ontario Paramedic Association (retrieved from https://www.ontarioparamedic.ca). Throughout the history portion of this literature review, the main source of information comes from “History of Paramedics in Ontario” (2015), which can be accessed on the Ontario paramedic association website. In the instances where I am not drawing on this document, I will identify those citations.

## History

The following section will focus on the timeline of paramedicine and its course of development. Before paramedics gained the pre-hospital capabilities they have today, they were referred to as ambulance drivers and were used as a type of taxi service for those having a medical emergency. In the 1700s, these individuals were used to transport wounded soldiers by horse and cart to hospitals for treatment (Institute of Medicine, 2007).

In Ontario, the first ambulance service appeared in Toronto in the late 1880s. Ambulance drivers adopted their first practical skill of splinting fractures and general first aid in the early 1900s, which helped decrease mortality rates. During WWII, the medical community recognized ambulance drivers as a required service and made an effort to include them within the treatment plans of injured people, which later caused Ontario to recognize the vital role they play in the medical field. Some other key aspects that inspired Ontario's growth within paramedicine were the use of specifically trained medics during the Korean War (1950-1953), who delivered care in the prehospital field. The importance of pre-hospital medical care brought forward the first successful use of a defibrillator on a human, demonstrated in 1957. In 1959, defibrillators were shown to be effective in treating ventricular fibrillation, a heart condition that does not allow for proper contraction of the heart, reducing blood flow throughout the body. This was followed by training ambulance drivers in mouth-to-mouth resuscitation. In 1965, cardiopulmonary resuscitation, better known as CPR, and artificial respirations were used widely in hospitals and by ambulance drivers to help improve prehospital patient care. The Ontario government introduced the Ontario Ambulance Act was developed in 1966, which allowed for licensing, standard setting, and coordination among ambulance services (Ontario Ministry of Health and Long-Term Care, 1990).

In the late 1960s, the 9-1-1 system was developed in order to gain better access to medical care. The use of portable radio telemetry was introduced around the same time, which allowed ambulance drivers to send a continuous electrocardiogram (ECG) to physicians in order for them to interpret the results from the emergency department. Slowly, ambulance drivers were becoming paramedics, as they began to provide more medical interventions to their patients during transportation to the hospital. In 1970, Base Hospital programs took charge of training and licensing paramedics to include the use of certain medications and allowed them to act as physician delegates.

College programs were later developed, where paramedics could gain the skills necessary for the advancing technologies and procedures. By the 1990s, paramedics had gained skills that included pulse oximetry and capnometry, 12 lead interpretations, pronouncement in the field, computers for documentation purposes, and further paramedic education. With the new college programs came new learning techniques that included patient simulators, heart arrhythmia generators, videotapes, and computers. These techniques allowed paramedics to be taught things like external transcutaneous cardiac pacing, synchronized cardioversion, automatic and semiautomatic defibrillation, and intraosseous needles. In Ontario, there is now a two-year college program for primary care paramedics and an additional one-year program for advanced care paramedics.

In Ontario, there are 65 different paramedic services based on region (Ontario Ministry of Health and Long-Term Care, 2018). Within each different service, typically around five or six different services in proximity are grouped together and are based under the same Base Hospital. A Base Hospital is a board of physicians who determine the paramedics' scope of practice in providing symptom relief and the use of medications, as well as certain medical procedures. The

Base Hospital also acts as a quick resource that paramedics can use for additional guidance while on the job by dialing a specific number and having a physician answer. In short, the Base Hospital is what regulates what the paramedics are permitted to do in relation to delegated medical acts. There are eight base hospitals within Ontario; seven of them are land-based, and one is air-based.

In this history review, we see the paramedic transition from a non-medical member of a health care team to a highly medically trained health professional required to provide immediate medical attention in pre-hospital emergency settings and non-emergency situations.

**Paramedic Scope of Practice in Ontario**

A paramedic's scope of practice refers to the medical acts they are certified to perform and the symptom relief medications they are allowed to provide to their patients under the licence of their base hospital physician. The following section will highlight the scope of practice of primary care and advanced care paramedics in Ontario.

After a primary care paramedic is fully certified in Ontario, based on the Professional Paramedics Association of Ottawa (n.d.) some of their mandates include: performing 12 lead ECG and ST elevation myocardial infarction diagnosis, insertion of advanced airways, airway suctioning, capnometry, CPAP therapy, defibrillation, hemostatic dressings, intravenous access and monitoring, taser probe removal, administering supplemental oxygen, and performing first aid treatments such as bandages, splints, and tourniquets. The medications that a primary care paramedic can administer include Acetaminophen, ASA, Dextrose, Dimenhydrinate, Diphenhydramine, Epinephrine, Glucagon, Glucose, Hydrocortisone Sodium Succinate, Ibuprofen, Ketorolac, Naloxone, Nitroglycerine, Oxygen, and Salbutamol. The routes of administration include oral, intramuscular, and subcutaneous. Advanced care paramedics are mandated to be able to perform more delegated medical acts, including the ones listed above, and

intubation, CVAD infusions, intravenous therapy, needle cricothyrotomy, needle thoracostomy, synchronized cardioversion, and transcutaneous pacing. Based on the same professional standard documents, it also addresses the medication list advanced care paramedics are certified to use, which includes the medications listed above as well as Adenosine, Amiodarone, Atropine, Calcium Gluconate, Dopamine, Fentanyl, Ketamine, Lidocaine, Midazolam, Morphine, and NaCl 0.9%. The final and highest level of paramedic, critical care paramedics, typically work for aeromedical transport services and can perform a wider range of delegated medical acts, consistent with the care provided by intensive care units in hospitals.

Overall, it is demonstrated above that the increase in the use of medical interventions in pre-hospital settings has required strict guidelines, certifications, and continual medical education. With that comes the further need to ensure the initial education process includes enough medical training and knowledge to be successful with the above-mentioned medical interventions.

**The Different Systems of Paramedic Education**

Different countries have different approaches within their education systems when it comes to paramedicine. In order to understand the context of Ontario's education system, it is helpful to look at how other countries are educating their paramedics. This section is going to briefly discuss two different progressive education models in paramedicine, the UK and Australia. The Ontario education system will then be discussed to situate what is being done here in Ontario.

In 1998, the roles of paramedics in the UK were expanded to allow them to treat and release patients who did not have serious medical conditions and did not need to see a physician immediately. With this came the requirement of needing a deeper clinical understanding of anatomy and physiology, as well as communicable diseases. At this point, the United Kingdom decided paramedic education at the university level was necessary (Brooks et al., 2015). The

educational requirements included a university degree in emergency care with a specialization (Brooks et al., 2015). In order to produce highly trained medical professionals, the education requirements and preceptorship hours in the United Kingdom were continuously increased and included constant curriculum reviews. The United Kingdom has a longer and more structured framework than many other countries and is thought to be one of the leading countries for paramedicine.

In Australia, there are two main educational pathways to becoming a paramedic: (1) vocational training and (2) university-based education. Some universities within Australia have provided students with international experience by sending them to China to observe their practise and to gain more insight into different cultures. Williams and Webb (2013) explain the successful implementation and expansion of paramedic/nursing double degrees in Australia and the potential of advancing to paramedic practitioners like in the United Kingdom (Ruston & Tavabie, 2011).

In Ontario, individuals who wish to become paramedics must complete multiple different educational requirements in order to earn their diploma and certifications. As a primary care paramedic, individuals must complete a two-year diploma program at an accredited college, which focuses on learning about anatomy, physiology, pharmacology, and mechanisms involved in acute injury and illness (Professional Paramedics Association of Ottawa, n.d.). These college programs include clinical rotations in hospitals and between 400-500 hours of preceptorship for field placements dependent on the college of choice. Each individual must then successfully pass the advanced emergency medical care assistant provincial exam (Ontario Ministry of Health and Long-Term Care, 2000). Once that is accomplished, the individual will undergo physical, mental, theoretical, and practical tests as well as interviews in order to obtain a job with a paramedic service in Ontario. That individual must then perform scenario testing with the regional Base Hospital to

be granted the right to practice under a physician's license, allowing them to perform medical acts that have been pre-approved and established by the Base Hospital Physicians board. Once complete, the paramedic will begin their orientation to the service, which includes a lengthy probation period as well as specific driving conditions. Paramedics must also complete continual medical education at least once annually to maintain their certifications with their Base Hospital (Ontario Ministry of Health and Long-Term Care, 2000). This concludes the processes used by the Ontario education system within paramedicine, demonstrating both their educational and theoretical requirements as well as the physical and motor skills necessary.

It is shown in the research that paramedic education varies across the UK, Australia, and Ontario. Some countries and/or provinces require more intensive training and education than others. These differences come from the different medical responsibilities' paramedics have within different countries and provinces.

**Research on Paramedic Preceptorship**

In this section, I review the research that has been conducted specifically within the realm of paramedic preceptorships. I will focus mainly on research that discusses paramedic preceptor training.

A review of the literature was conducted by Edwards (2011) in order to identify if there was a need for further research into the role of the paramedic preceptor and how prepared newly graduated paramedics feel taking on the role of preceptor. Edwards (20 11) discussed data provided from the Council of Ambulance Authorities (Australia) 2008-2009 annual report that revealed that one in every three paramedics in Australia was working with a student or newly hired staff member at the time. The researcher brings to light the recent increased demand for paramedic preceptors that has foregrounded the question of preceptor education and their abilities in performing the

teacher position. The researcher concludes that due to the ever-changing scope of practice of paramedics and the increased preceptor demand, there should be increased importance placed on preceptors and the skills required to fill their role. Overall, it was commonly underlined that preceptors were not given any prior training in order to teach their paramedic students, and it was suggested that this practice be reviewed (Edwards, 2011).

Slade (2007) conducted an action research study in Canada, specifically Alberta, which looked to help bridge the gap between the theory and practice of paramedic preceptorship. He used both quantitative and qualitative data and aimed to explore the competencies that paramedic preceptors need to be effective at precepting students and to provide recommendations for improvements. The participants in the research study consisted of three paramedics employed with Edmonton EMS who participated in a focus group. The researcher also invited 200 EMS paramedic staff members to fill out an online survey as a type of self-assessment. A third group consisted of seventeen second year paramedic students who were hand delivered surveys as a preceptor assessment tool. One of the major findings within the research revolved around the difficulties that arise due to the common lack of preceptor's knowledge of teaching. Slade (2007) recommends that preceptors be put through a program in order to gain more knowledge of the appropriate competencies required to be a preceptor. These competencies include preceptor knowledge and roles, communication skills, as well as learning and teaching skills. The researcher also suggests periodically assessing preceptors to ensure they are still receiving updated training and support.

Several research studies examined programs that have been used to assist in the creation and training of an effective preceptor. In 1985, Pons, Dinerman, Rosen, Dernocoeur, Coxon, and Marlin conducted an analysis of how a newly implemented program performed in training recently

hired paramedics while also looking to see if this type of training program could be beneficial for paramedic preceptors in the USA, specifically Colorado. The program was called the Field Instructor Program and was developed in 1978 by the Denver Department of Health and Hospitals Paramedic Division. The experience of seventy-eight participants who went through the field instructor program was analyzed, where the researcher noticed that the length of the program varied per person based on the amount of assistance they needed. Based on the results, Pons et al. (1985) concluded that the longer it took to complete the program, the less qualified the individual was. The researchers recommend that utilizing this kind of program for paramedic preceptors will help decipher which individuals would be successful in undertaking the preceptor role, as well as provide support and guidance to those that wish to be preceptors. Within this study, the authors also underline the aspect of added stress that preceptors must endure (Pons et al., 1985). Becoming a preceptor means being able to take on the responsibility of a student by observing and training proper communication and medical skills. In addition, paramedic preceptors are also responsible for ensuring the safety of everyone involved. For these reasons, the researchers suggest a similar program to add extra support for the preceptors and the roles they must take on (Pons et al., 1985).

In reviewing the previous studies concerned with i) the need for research on paramedic preceptors, ii) bridging the gap between theory and practise, and iii) the use of programs in training effective preceptors, all three studies came to a similar conclusion. The studies all suggest reviewing the paramedic preceptor process and incorporating the use of training programs to enhance the preceptors' teaching skills.

Another study was conducted in the Midwestern area of the United States and aimed to address the lack of preceptor education by implementing a video case study to better prepare paramedics for their role as preceptors and evaluators (Jading & Sime, 2001). Specifically, the

research looked at whether paramedic preceptors who watched a video of a case-based teaching approach to prepare them for the role of evaluator would improve their skills compared to those who did not watch the video. An experimental research design was used, where the experimental group was given structured rating guidelines and practice in applying them to a case study video, while the control group carried on with their normal practices, receiving none of these guidelines nor additional preparation. Pre-test and post-tests were used in the comparison of the control versus the experimental group. The results of the pre-tests and post-tests revealed that those who watched the case study video prior to becoming a preceptor showed higher scores in communication, assessment, and knowledge. There also appeared to be an increase in reliability among preceptors' evaluations (Jading & Sime, 2001). The researchers suggest that preceptors be assisted with transitioning from being practitioners to evaluators with the use of case-based learning approaches delivered in a video format. They concluded that this process helps increase the reliability of evaluations among preceptors and enhances problem-solving skills. When looking at being a preceptor in this light, it is encouraging to have a training program to not only ensure students are trained consistently, but also to make sure that preceptors have proper evaluator skills. This research study attempted to address the lack of preceptor education with a program, which the following research study evaluates the quality of similar programs.

The following research studies look at the quality of preceptorship programs and field placements. O'Meara, Williams, and Hickson (2015) conducted face-to-face semi-structured interviews in order to determine the elements of quality clinical and field placements according to paramedic instructors. Fifteen paramedic instructors who had supervised at least one paramedic student who had completed their program at the university level were invited to voluntarily participate in the interviews. The results demonstrated a great deal of variety between the standards

and expectations within clinical and field placements. It was concluded by the researchers that both paramedic services and universities should collaboratively address the diversity within clinical and field placements with the use of standards. The researchers made the recommendation of developing and implementing a standardized clinical placement booklet in collaboration with paramedic services and universities (O'Meara, Williams, & Hickson, 2015).

A research study by Barker (2016) was conducted in order to investigate the effectiveness of a paramedic training program. Specifically, the researchers examined the Gateway Paramedic Program, established in 1989. This curriculum-based program took place at a technical college in Wisconsin. The study used focus groups, surveys, and one-on-one interviews that included questions about the participants' strengths and challenges in the program and welcomed recommendations for improvement (Barker, 2016). The researchers concluded that while curriculum and content are important factors in paramedic training, there are certain barriers to learning that can't be overlooked, including the lack of feedback systems and community preparedness. The gaps within preceptor training were outlined where the researchers suggested a need to address, develop, and implement a dedicated preceptor program for field placements (Barker, 2016).

In the following research study, the preceptorship experience in the Nuclear Medicine Technology Program was examined. This research study was conducted by exploring preceptorship in Alberta by using a qualitative action research design with two focus groups, one in Edmonton and one in Calgary. Within both groups, there were six to eight participants, where each individual was asked open-ended questions about their understanding of the different roles of the preceptor, clinical coordinator, and their paramedic program. The results showed the common opinion of minimal support given to preceptors. This was attributed to a lack of

coordination between the certifying body, the employer, and educational training (Docherty, 2005). The researcher suggests expanding community practice, providing better support to preceptors through the use of a strategic framework and providing additional preceptor training.

In a 2018 study, O'Meara and Maguire conducted a review of literature on Australian universities in order to help develop a sustainable academic workforce in paramedicine. Within the review, major discussions focused on how the literature pointed to the importance of having universities, paramedic services, and the profession come together in order to better prepare paramedics, which would result in an improved paramedic service for the community as well as a more sustainable work force.

The four previous studies that evaluated the quality and effectiveness of preceptor programs and a sustainable academic workforce in paramedicine, demonstrated the need for preceptor programs in order to gain a better overall view of what should be taught to a preceptor before they take on that role. One study focused on the use of a simple preceptor booklet to refer to, the second focused on preceptor programs, and the last two put a focus on community and collaboration between educational systems and paramedic services.

The following two research studies highlight the different approaches to mentorship and teaching strategies, where we understand preceptorship as a type of mentorship. Gurchiek et al. (2011) conducted a qualitative study using a phenomenological approach in order to gain insight into paramedics' experiences with preceptorship within the United States. The goal of the research was to learn more about how paramedic preceptors provide clinical education to their students. In-depth face-to-face open-ended audio taped interviews were conducted with ten paramedic preceptors. There were three main findings brought forward in the results of this study that determined which factors are most important in making preceptors effective teachers. Preceptors

with years of clinical experience can help students develop better critical thinking skills and clinical judgment in an uncontrolled environment. The findings also suggest that preceptors who take responsibility for their students and are committed to their success will be better able to assist their students in attaining higher standards of behaviour, medical practise, and ethical responsibilities. Lastly, preceptors who are able to recognize their students' individual learning needs and tailor their teaching to fit those needs will have higher success rates. Overall, the researchers suggest that successful preceptors should have more years of experience, be fully responsible for their students, and be able to recognize and use different learning needs and implementation techniques (Gurchiek et al., 2011).

In the following research study, Yonge (2009) examined the perspectives of nurse preceptors and students with a focus on preceptor teaching. The data was collected from eleven semi-structured interviews with nursing students, participant observations during placements, and a review of course material. The results of the study revealed the success of nursing preceptorship following the implementation of a three-part plan. The first stage of the teaching plan involved observation; the second allowed the student to use the specific skills learned under close supervision, and the third stage allowed the student to perform these skills on their own. This last part resulted in paramedic students feeling more confident. Yonge (2009) concludes that this method works within the nursing realm and questions why this technique is not being implemented in the paramedic field. An important factor to consider is the environment in which the two healthcare professionals work. Nursing is done mainly in a structured environment, whereas paramedicine is conducted in a less predictable atmosphere in the field. Despite the differences between professions, the base theory of the teaching aspect of nurse preceptors could be closely related in terms of structure within paramedic preceptor programs.

Finally, I've included research that examines some characteristics that preceptors should have in order to be successful. In an early study, Klausmeir (1994), an instructor of teacher education, outlined the characteristics of an effective mentor (understood as a preceptor) in an article, "Responsibilities and Strategies of a Successful Mentor." The author discussed strategies that could be used by these mentors for personal and emotional development and for effective interactional strategies. Klausmeier (1994) recommends that mentors should be selected on identified criteria consistent with school district goals and that they should receive training consistent with these established goals.

In more recent research, Carver (2016) sought to understand the experiences of paramedic preceptors in order to develop recommendations to improve paramedic preceptorship. The researcher used a hermeneutic methodology in order to gain an in-depth understanding of paramedic experiences, with an emphasis on subjective interpretations. Eleven paramedic preceptors from the same Australian ambulance service participated in audio recorded conversations. Based on the results, the researcher concluded that when taking on a student, there is increased emotional demand, responsibility, accountability, and workload for the preceptors, leading to increased stress and mental exhaustion (Carver, 2016). The researcher further concluded that there is a need for preceptors to identify students' learning needs, establish a set of learning goals, and plan tangible learning experiences to achieve those goals. To accomplish this, the researchers suggest that a preceptor must first have knowledge of how to implement effective pedagogical strategies and how to give constructive feedback. Overall, the above research demonstrated that there is diversity within what personal characteristics make a preceptor successful. The commonality between the two research studies is the suggestion of having prior knowledge of or training in the teaching realm before becoming a preceptor.

Overall, the above studies help describe how preceptorship has been explored within preceptor training and programs. The research demonstrates diversity across all the discussed domains, including how preceptors are taught as well as how they use their teaching skill sets and strategies. The research also suggests a need for additional training for those that wish to be paramedic preceptors. In particular, Edwards (2011) recommends that more research should be done across paramedic preceptorships as a whole.

**Summary of the Literature Review**

Within the literature review, the research demonstrated how paramedicine has slowly progressed from ambulance drivers to paramedics, who are highly trained medical professionals necessary in the pre-hospital care of emergencies. This information was included to increase awareness of how paramedicine has developed and to bring awareness to the knowledge paramedics are required to have. The paramedic scope of practice section concluded that there has been a large increase in the use of medical interventions, which was followed by an increase in medical and professional training. The knowledge of what paramedics are certified to do medically is important in understanding any concerns in regard to lack of training. There was also a focus on paramedic preceptorship, where the diversities between different educational programs and training were revealed. In the final section, the research on paramedic preceptorship was explored, with a specific focus placed on preceptor training in order to get a better understanding of the need for further research. It explored some programs that have been put in place for students and preceptors during their preceptorship, the quality of similar programs, different mentorship approaches and teaching strategies, and concluded with research that examined some characteristics that make preceptors successful in their role.

Building on these findings, and in order to understand these didactic mentoring relationships, this research is interested in gaining first-hand knowledge about practising paramedics and their experience as both paramedic students and paramedic preceptors.

### Research Questions

Therefore, the research questions which this study sets out to answer are: What are the experiences of practising paramedics in Ontario in their roles as preceptors? Additionally, what were the preceptor's experiences as students during their own preceptorship?

## Chapter 3 - Theoretical Framework

In order to attain the objective of exploring paramedic preceptorships to gain more information and insight into preceptors' perspectives and experiences, this study adopts a sociocultural theoretical framework which describes human learning as a social process where the beginning of human capacity is derived from within society or culture (Vygotsky, 1978). Sociocultural theory has become one of the foundational theoretical frameworks within educational research today. Vygotsky's theory focuses on the importance of social interactions and the zone of proximal development. The zone of proximal development is described as the individual's personal abilities and the areas they can reach with help and guidance, including technology and/or specific tools (Vygotsky, 1978). Correspondingly, the mentorship model is built on this idea where the relational space between what you know and what you can accomplish lies within the more knowledgeable individual and their guidance. Vygotsky's theory also emphasizes the complex relationship between the social-cultural world and cognitive development. In Vygotsky's theory, learning leads development; "Learning is a necessary and universal aspect of the process of developing culturally organized, specifically human psychological function" (Vygotsky, 1978, p. 90).

Sociocultural principles have been applied effectively in many different domains; some of the key researchers in the field include Jerome Bruner (1993), Jay Lemke (2001), and Barbara Rogoff (2003). Bruner (1997) applied sociocultural theory in cognitive psychology, education, and within narrative research. Much of his research focused on the culture of education, where he states, "How one conceives of education, we have finally come to recognize, is a function of how one conceives of the culture and its aims, professed and otherwise" (Bruner, 1997, p. x). Lemke (2001) applies sociocultural theory to science education and describes its application within science education as "viewing science, science education, and research on science education as human social activities conducted within institutional and cultural frameworks" (Lemke, 2001, p. 296). He further explains that the use of sociocultural theory includes placing emphasis on questioning the role of social interactions in teaching and learning, as well as the use of the tools given to us by our communities. Rogoff (2003) focused her studies on human development and the relationship between learning and an individual's cultural community. Much of her research studies focused on indigenous heritage and communities of the Americas, particularly Guatemala and Mexico. Rogoff (1995) applied sociocultural theory to understand actions like collaboration and learning through observation. More specifically, Rogoff (1995) adapted sociocultural theory to explore personal, interpersonal, and community processes, which she refers to as apprenticeship, guided participation, and participatory appropriation activities.

In order to better understand the perspectives and experiences of paramedics in their role as preceptors, this study plans to use a sociocultural theoretical framework as put forth by Rogoff (2003). Specifically, I draw on her adaptation of the theory in the form of guided participation. Guided participation is described by Rogoff (1990) as a socio-culturally structured interpersonal engagement that includes the communication and coordination of each individual's involvement.

When separating the terms, *guidance* refers to the direction offered by social partners as well as the influence of cultural and social values. *Participation* refers to the efforts that people expend with their involvement and observations. Guided participation is used as a way to look at all interpersonal interactions and arrangements (Rogoff, 1990). Within this perspective, learning is said to be a process of participation in community activities. This means that the learner must play an active role in their learning in order to succeed. In the book *The Cultural Nature of Human Development* (2003), Rogoff examines how different cultural backgrounds and traditions lead to development. She makes it clear that the *when* and *where* are extremely important when it comes to learning and development. Within guided participation, Rogoff (2003) also brings up the notion of mutual bridging of meanings and its reliance on nonverbal communication with the use of a common perspective, relating back to the understanding of the didactic mentoring relationships. However, it is also important to include mutual structuring of participation. This includes structuring opportunities to observe and participate, direct interactions, elaborate, and listen. By determining the proper balance between guidance and self-participation, the individual is better able to learn skills like leadership and motivation and engage more deeply for longer periods of time.

For these reasons, guided participation is a useful sociocultural framework for a study of paramedic preceptorship experiences and perspectives as paramedic students and paramedic preceptors. This framework directs our attention to paramedic preceptors' experiences and their social interactions with their students. Furthermore, the theory will allow for exploration of the ways different tools play a role within these interactions. This will allow me to understand how each individual's personal experience, learning, and perspectives result from their social and cultural interactions. For these reasons, a sociocultural perspective, particularly that of guided

participation, will assist in better understanding the experiences and perspectives of preceptors during paramedic preceptorship. More specifically, this research plans to take the participants' personal interpretations of their social interactions in relation to their success and failures with guided participation.

## Chapter 4 - Methodology

This study adopted a narrative inquiry methodology in order to explore paramedic experiences and perceptions about their preceptorship. Narrative inquiry is a research methodology that allows the participant to explain in full detail their perceived experiences of specific events. Narrative inquiry was chosen due to its ability to allow individuals to tell their own stories, describing their experiences. This methodology attends to personal and social conditions, which will allow my research to examine the participants' feelings, hopes, and desires as well as the specific conditions in which their experiences occurred (Clandinin & Connelly, 2000). Some of the key researchers within the field of narrative inquiry include Polkinghorne (1995), Connelly and Clandinin (2000), and Riessman (2008). While each of these researchers puts forth an argument for narrative theory in qualitative research, they come at it from different angles. Polkinghorne (1995) describes narrative inquiry as the linguistic form of the unique display of human existence. Further, he proclaims that events and happenings are understood relative to their contribution and impact on an outcome. Polkinghorne (1995) focused his use of narrative inquiry on two methods: narrative cognition and pragmatic cognition. Connelly and Clandinin (2000) view narrative inquiry as experiences understood by telling stories. These researchers have decided to focus their narrative research on teachers in order to understand what teachers know and do, describing both the personal and social aspects of educating students. Riessman (2008) maintains a broader approach within the realm of narrative inquiry. She does not define narrative inquiry by

one definition, but rather thinks of it as a method that can be used in many different ways and different domains. Riessman (2008) focuses her narrative inquiry research on interviews and transcriptions. She argues that the interview is the story, and the transcription is the vehicle for interpretation. For these reasons, the use of narrative inquiry has importance for my study due to the nature of the research requiring participants' personal experiences that are conveyed by their own perspectives.

Specifically, for this study, I have chosen to situate myself most closely with Riessman's approach to narrative due to her notion and use of interviews and transcriptions as well as her open-mindedness with incorporating all definitions of narrative inquiry into one (Riessman, 2008). According to Riessman (2008), the important principles include a focus on narrative interviewing and both verbal and non-verbal communications, the different analytic approaches available to narrative research (thematic analysis, structural analysis, dialogic/performance analysis, and visual analysis), and the importance of perception.

As a researcher, this method provides meaningful discussions of each individual's experiences as paramedic students and paramedic preceptors. This type of research methodology allows for a caring perspective on how knowledge is produced and depicts the differences between each individual's perspectives and/or experiences. By having the participants express their experiences and stories, I was able to infer and discuss those aspects of guided participation that were meaningful for them. Being immersed in these conversations also gave the participants a voice, allowing their stories to be heard.

**Research Participants**

There were a total of six participants with a range of five to thirty-five years of experience at the time of their interviews, including all three levels of paramedic: primary care paramedic,

advanced care paramedic, and critical care paramedic. In addition, all the participants have previously been preceptors to at least one paramedic student. These selection criteria were chosen in order to ensure the participants had the necessary experience as preceptors.

**Recruitment**

A recruitment text (Appendix A) was sent out via email to all the members of the Ontario Paramedic Association. The purpose and the potential benefits of the study were described, as were the inclusion criteria. The Ontario Paramedic Association is a professional, non-profit organization representing paramedics across the province. Paramedics across Ontario are welcome to join with a small annual membership fee. They also provide legal and administrative structure for the paramedics in Ontario. There was a wide variety of interest from paramedics across Ontario, however, the six participants chosen were based on a first come, first served basis.

**Data Collection**

Six paramedics were interviewed, and each individual's in-depth open-ended interview was audio recorded. The participants read and gave their consent prior to beginning the interviews (Appendix C). The discussions were narrative in nature, gathering information about paramedics' experiences with their own student preceptorships and, now as practising paramedics, about their roles as preceptors. The average time for each interview was sixty minutes. The interview took the form of an engaging personal conversation, one person talking with another. The questions and prompts came from the conversation itself and a genuine interest in what the participant was discussing, not from a preconceived list of questions. The individuals were given the freedom to share their experiences as they saw fit and were given the time they needed to speak without interruption. On some occasions, the participants were prompted to provide more information on their backgrounds and their perceptions and experiences about the effectiveness of their own

training, as well as the pedagogical methods they use to train others. These interviews encouraged engaging discussions about the participants' experiences while maintaining confidentiality and anonymity.

**The Analytic Process**

The data analysis focused on the didactic mentoring relationships, social interactions and the role that tools and equipment play within these factors. It was looked at as a way to understand the participants' experiences through the recounting of their lives, highlighting what was important to them based on the stories they chose to tell, and shedding light on their roles as preceptors. There were multiple steps taken within the analytic process in order to answer the research questions:

> What are the experiences of practising paramedics in Ontario in their roles as preceptors? Additionally, what were the preceptor's experiences as students during their own preceptorship?

The first step within this process consisted of transcribing the recorded data using verbatim transcription. The next step involved multiple readings of the transcribed data to begin the process of understanding the narrative experiences that were shared by each participant. After reviewing the transcribed data, I wrote a short paragraph for each participant reflecting their values, beliefs, and attitudes. Following that, I created an individual narrative for each of the six participants. These narratives emanate from the events that the participants presented within their narrative interviews. While creating these narratives, I reread the transcripts multiple times and had multiple discussions with my supervisor, who was able to review and provide feedback on the confirmability and credibility of the narrative I created based on their narrative accounts. We had many discussions about the interpretations of the experiences that were expressed by the

participants in order to ensure the most accurate interpretation of what they were expressing was conveyed. Transforming the transcripts in such a manner allowed for a better understanding of the participants' experiences and was helpful in understanding some of the salient themes for each of the participants. After multiple readings of the participant narratives in conjunction with the original transcripts, four themes stood out as important to the group. I used direct quotes from the original transcripts of each participant that supported their opinion on each specific theme. These were displayed in figures within the text, following the paramedic narratives. Throughout this process I was able to ensure trustworthiness by a number of means. Lincoln & Guba (1985) look to four different criteria when evaluating trustworthiness, that is credibility, transferability, dependability, and confirmability. In a more recent article by Stahl & King (2020), they point out that trustworthiness, specifically credibility and dependability can be achieved by specific actions by the researcher. In order to ensure credibility, I chose to use the four themes that were addressed most completely by all or most of the participants. While other topics were important within the data collection, in order to convey congruence and credibility this was the technique used. Dependability is more difficult to communicate as put forth by Stahl & King (2020). Within my research study I had multiple discussions and read throughs with my thesis supervisor in order to convey dependability, described as the trust within trustworthiness. This technique allows for confirmation among the interpretations of the data. I also used reflexive auditing as put forth by Stahl & King (2020), which they describe as the researcher being immersed in their own research with their values and passions, which allows for another level of trust within the research.

The paramedic narratives will be presented first, followed by the salient themes that were discovered. This distinction was made in order to give the reader an opportunity to get to know the

participants and to see the data that was collected, which helps support the following section of the themes.

## Chapter 5 – Paramedic's Narratives

In the following section, there will be a description of the participants and their experiences expressed through their own narratives. This will help give a sense of who the participants are and what their experiences were, both as paramedic students and as paramedic preceptors. Each participant was given a pseudonym in order to maintain confidentiality. The narratives are listed in order of level of paramedic education, including primary care paramedic, advanced care paramedic, and critical care paramedic, as well as in numerical order of the years of experience they have within their subsection. While each of the narratives is particular to each participant, in order to further distinguish the participants, I decided to order the stories in this way to distinguish the way primary care paramedics, advanced care paramedics, and critical care paramedics view their experiences and express their stories.

### Penny's Narrative

Penny had the least experience as a paramedic out of the six participants interviewed. However, she was very eager to share her experiences and be able to reflect on them as well as learn from them. Penny has been working as a paramedic for approximately 5 years. She went to an urban college in Ontario and is currently a primary care paramedic in a large city. Penny is working on her graduate degree, with her thesis focusing on paramedics. During the interview, Penny expressed most of her experiences by describing the emotions and sentiments she felt rather than the experience itself.

### *Primary Care Paramedic Student*

Penny recounted that she had a good preceptorship experience. She described her preceptors as experienced, welcoming, and friendly. She knew both of her preceptors prior to beginning her preceptorship as they were both involved at the college she attended. While she was a student, the college and paramedic service attempted to match students and preceptors based on personalities, however she recalled that students were not allowed to make requests for preceptors.

Throughout our discussion, there was ongoing mention of the value of the student preceptor relationship, communication, and psychologically safe environments. These were things that her preceptors had demonstrated during her student preceptorship. Creating strong relationships leads to psychologically safe environments and better communication. She recounted how her preceptors would provide support and comfort to her during and after stressful situations. She felt this psychologically safe environment allowed her to thrive during her time as a student. One of the highlights of her experience was how comforted she felt. She stated, “I felt like I was safe to fail in that environment.” This was accomplished by using a structured approach and debriefing after every call, which helped her to create a routine and become comfortable in her role. She stated, “The way that they delivered their feedback was good, and obviously has shaped like what I want to have for students.”

Some of Penny’s most memorable experiences stemmed from good communication. Specifically, the supportive conversations she and her preceptor would have after they finished a tough call, stating, “It’s the human moment between you that’s most memorable.” During the interview, she recounted one specific discussion she had with her preceptor after finishing a difficult call during which the patient had died. She had been standing with her preceptor outside the back of the ambulance and remembers him asking her how she felt. It was the first time she had done a call like that, and she understood this experience was an important one for her learning

and education. Her preceptor had responded by saying that this call was something that people don't normally see and that it is okay to feel weird. Her preceptor reiterated that they were there to support her in any way she felt she needed. During these conversations, Penny felt a strong human connection, which she expressed to be the most important part of her preceptorship. Another important aspect of Penny's experience as a student was how she was treated like a friend and colleague by her preceptors. She stated, "It was a really good experience and there was also a friendship developed after that and a lot of mentorships during as well." Penny spoke strongly about the educational benefits of building strong relationships between preceptor and student.

Penny's positive experience as a student had made her aware of the fact that she would also like to be a preceptor one day. She specifically stated, **"**I think the desire to become a preceptor started from a good experience in my preceptorship."

***Preceptor***

To become a preceptor, each paramedic service has its own requirements. For Penny, the position required a minimum of two years of paramedic experience and required applicants to put their names on a Google document to indicate their interest in precepting. Penny and her work partner decided to take on the role of preceptor together and agreed to work as a team. They became preceptors around two and a half years after beginning their careers as paramedics. At the time of the interview, Penny and her partner had a total of three paramedic students, where the first two were randomly assigned to her and the third came from a recommendation from a teacher at one of the colleges in the area. Penny's desire to be a preceptor stemmed from her positive experience as a student. She specifically stated, "We both had good experiences in preceptorship and wanted to kind of pass that on."

Penny recounted that there was minimal communication between herself and the college that her student came from. She found this to be very difficult as a new preceptor. Not having any

information about the student's learning over the past year and a half, or their education program, made it more challenging for Penny to be able to understand a baseline beginning point for her students.

> There was really no information about, like, this is where the student should be at this time, and we didn't really have anything to compare besides, like, thinking about our own experience, which is really hard to reflect on without being very biased about how it went.

Penny expressed that she had a difficult time adjusting to being a preceptor for the first time, stating, "The first student we had was a bit of a struggle on both sides because we were just trying to figure out, we really had no baseline of where a student should be at any point." She turned to her friends, who were not preceptors, in order to gain some information and new perspectives on what a student's baseline education should look like, whether or not her student was below average, and how to get them up to speed on where they needed to be. There was no one else Penny could turn to for information in this regard.

> It was just a lot of uncertainty at that point, and we were, my partner and I were just trying to figure it out as we went, just a lot of awkward conversations of trying to instill the same things in her that our preceptors did for us, so like trying to focus on self-awareness and reflection and like, student led debriefing and stuff like that, but it was a lot of, it was a struggle for sure.

After Penny and her partner managed to mentor their first student using trial and error, she recounted that the second one was a lot easier after having had the experience of their first student. She stressed the importance of not comparing one student to another due to everyone's different

educational requirements and backgrounds. However, she felt as though the experience gave her more of an idea of what her students' needs were at any given point in time, and she was able to develop some tools to help get her students where they needed to be. The difference between having another year of experience as a paramedic also helped her.

> I have been working for just over 5 years now, and I think just being more and more comfortable in your own role as a paramedic certainly helps to just take a step back and really let them take charge.

Penny described how she and her partner had attempted to prepare themselves by sitting down and talking about the teaching styles they wanted to use in order to be good preceptors. She had read research on paramedic preceptorship and had taken notes to try to create a plan. They picked out certain things that they really wanted to instill in their first student, things that were important to them. Penny found that, although she had good intentions, all this work done prior to being a preceptor misled her. She found she had become too rigid and that she had learned, while structure is comforting for the student, there also needs to be a degree of malleability within the preceptor. Penny discussed the importance of a preceptor being flexible with their structured learning and being open to the students' frame of mind, stating, "I think every student was different, so as I said, we had to be, I think, just malleable for what they needed."

Part of the discussion focused on the importance of students creating their own identity as paramedics, developing their own routine while she helps guide them and provides them with a supportive relationship that will last their whole career. She has prioritized student-led debriefing and self-reflection with her students in order to understand their current frame of mind and support the proper changes when needed. She believes this stems partly from her preceptors and partly from discussions with her spouse. In the interview, she stated, "My spouse is doing his master's in

health science education, so I'm certainly biased that way, like talking to him about techniques and stuff." Together, they have discussed how putting the focus back on the student allows them to think and reflect about how they are learning and if anything needs to be changed to better suit their needs.

Although Penny spoke very highly of being a preceptor, she touched on several challenges. She described how being a preceptor includes some very difficult decisions. She spoke about one of her own difficult experiences as a preceptor. For example, during the COVID-19 pandemic, many of the paramedic students had their preceptorship hours cut short. At the time, no one was sure how things were going to proceed, but it was clear that Penny's student had to stop preceptorship before finishing the required hours. At this point in time, Penny's student had completed about half of her preceptorship hours. Penny was asked to decide if the student could be passed to graduate from the program. She described how she was conflicted, passing her student if she wasn't ready could be detrimental to the student's career as a paramedic, as well as the lives of the individuals she serves. Not passing her student could be detrimental to the student, both mentally and financially. It was unclear whether failing the student meant forcing them to retake the entire year, or if they would be given remedial hours once the pandemic was over. Overall, Penny stated, "I think it's very grey, the decisions that we have to make with very little training, so I think that can be stressful for people." She felt as though there was a large amount of pressure put on preceptors with minimal support given. She believes that a shift in the identity of the profession would be beneficial in terms of preceptor training and experience.

One aspect of being a preceptor that Penny focused on was the importance of soft skills, the personal attributes that enable someone to interact with others effectively and harmoniously. She directly mentioned that preceptors do not receive enough training in communication,

leadership, or interpersonal skills. Penny believes that further preceptor training would be beneficial. She reflected on how preceptors would benefit from learning more about specific teaching strategies to use with their students, as well as learning more about assessments, decision-making, and perceptions, including frames of mind and biases. Penny redirected the conversation to some of the things that preceptors should be taught prior to commencing their roles, including learning about more human factors and soft skills and acting more as a guide than a teacher. The technique for teaching them these things should be based on a more vulnerable reflective environment to allow the preceptors to all learn from each other as well, gaining different perspectives.

Sometime later in the conversation, Penny focused my attention on how being a preceptor is self-motivated as there are no incentives or materialistic rewards in taking on the position. During the interview, she was unsure of the value of specific incentives for preceptors.

> I'm back and forth on thinking like it's part of our job to educate the future and this is such a huge part of their training, like 500 hours in the truck, but then also part of me is like if it was something that was interest-based that was a professional development opportunity with some sort of incentive that way, whether it's like receiving more training or those kinds of things like that, that might help people.

She described feeling like providing a financial incentive might attract individuals that are not interested in teaching, but rather just interested in the extra money. She believes this could cause problems in terms of the outcomes of students after their preceptorship. In relation to that, some individuals may take on the role negatively, whether that be based on poor preceptorship experiences such as power trips.

> I also think some people have a kind of skewed opinion of what the goal is… I have heard people say, "Oh they can't wait to have a student, they're going to be so hard on them" or people have said, like "Oh I have made every student I had cry." It's like did you have that experience when you were a student? Like were your preceptors mean to you.

Penny discussed how having preceptors viewed as professional development would be beneficial, rewarding the preceptor as well as being able to include and enforce continuous education.

Penny highly honours her job as a paramedic and sees it as a privilege to be trusted by the community to take care of their families. As a preceptor, she values being able to see the progression her students make, the difference in their communication skills, and their ability to problem-solve and critically think. More importantly, knowing that she has an impact on her students and the future paramedics they become is very meaningful to her. For these reasons, Penny feels it is important to focus on the human aspect of being a paramedic rather than focusing on the practical skills learned in school, seeing the role of a preceptor more as a mentor than a teacher. She values her position so much that she also hopes to see the preceptor role become an application process, in which one must prove why they deserve to be a preceptor.

### *Conclusion*

A central concern for Penny is the role of building sound relationships with both her colleagues and her students. Creating this trusting relationship leads to a psychologically safe environment, something Penny highly values. She has striven to provide this to her students. Penny views being a paramedic as a privilege and takes pride in being able to teach the next generation of paramedics as a preceptor. One of her most prominent values in being a preceptor is creating a good learning environment.

> This is a safe environment for anyone, like whoever you are and however you identify, and we just want to make it a safe environment for people to learn in.

## Crystal's Narrative

Crystal chose paramedicine for her high school co-op when she was just seventeen years old. She had to complete a full high school semester working with a team of two paramedics on the road. She spent five days a week doing 12-hour shifts shadowing two paramedics, completing well over 1000 hours. Crystal enjoyed her experience and went on to complete the paramedic program at a large public college in Ontario. She was hired by a rural paramedic service and has worked there as a primary care paramedic for nineteen years now. She has been a preceptor for both high school students doing co-ops like she did, and primary care paramedic students. Crystal has some teaching experience as a girl guide leader and instructor, which has helped her in her precepting journey. Crystal is a recent new mom and strives to make her students' preceptorship one where they feel safe, comfortable, included, and like they belong.

### *Primary Care Paramedic Student*

After Crystal completed her high school co-op, she was positive that she wanted to continue down that path and become a paramedic. The college she attended had her complete 100 to 120 hours of ride outs during her first year in the program. These shifts were strictly observational but gave her some exposure prior to their official student preceptorship. Once Crystal reached her second year, she began to complete her 450 to 480 hours of primary care paramedic preceptorship. She had explained that her initial co-op preceptors were amazing and that she asked to be paired with them again when it came time to do her primary car paramedic student preceptorship. Unfortunately, those two individuals were no longer working together, and their new partners did

not want to take on any students that year. Crystal was paired with a new set of preceptors. She described one of her preceptors as being involved and interested in having her as a student, whereas the other preceptor was very uninterested. She was at a loss for words when trying to describe the emotions and sentiments that her preceptors made her feel.

> They were very, I don't know how to find the words, we were in a fire department, and they had a very good relationship, my preceptor and her partner had a very good relationship with the fire department, and they excluded me from some of the things. Like they would say, "Don't come in until 10 o'clock tonight," because they were having dinner with the fire department, and of course you miss some of the good calls at that point, right.

Crystal felt as though she was unable to thrive as a student in this environment. She stated, "It felt like there just wasn't a good relationship there and I felt like I couldn't show that I had the skills at that point with those ones." She discussed how her preceptors wouldn't allow her to perform many skills, which made her feel as though she was unable to prove herself to them.

> I was there kind of as an observer, and there wasn't any communication between us, like, you know, what are you thinking on this call? They were almost like it seemed like they were best friends, and they were in this clique, and I was this third wheel. That was how it was with them.

This ongoing poor relationship between herself and her preceptors led her to speak to the college to allow her to do another student preceptorship.

Crystal returned the following year and restarted her student preceptorship hours with a new pair of preceptors. This time around, she described her experience positively and felt as though

she was more comfortable to fail. When comparing her experience from her first student preceptorship to her second, she stated, “It was like a total 180.” This time, her preceptors were invested in her success, there was an open line of communication between them, and they provided her with debriefs and more feedback in order to help her progress. She described how she would initially just observe and how there was little structure within their teaching. They progressed slowly by going with the flow and addressing any problems as they arose.

Overall, Crystal described the two experiences as polar opposites. She had a negative experience, which led her to strive for more. She wanted to ensure that she was given the student preceptorship that she deserved and that she was given a chance to succeed.

***Preceptor***

Much of the discussion with Crystal focused on the characteristics of the students she mentored. She was very passionate about making it known that she initially had a negative student preceptorship experience. However, she made the best of the situation. She has since taken on being a preceptor and always remembers to ensure her students feel comfortable and included, something she did not experience in her first preceptorship. Her experience during her student preceptorship has impacted the way she treats her own students. She specifically stated; “I wouldn’t ever want to treat anybody the way I was treated.”

Every year, an email is sent out to the staff of that paramedic service, stating that they required preceptors and advised them to respond if they were interested. This recruitment process did not set out any requirements for preceptors. Crystal has been a preceptor to both high school co-op students and primary care paramedic students. She described how she used to have a new student almost every year, but over the last seven years she was had not been given any. Recently, they have agreed to give out students more “evenly” in order to give more paramedics the chance to precept students. She approached her manager and questioned why she had not been given a

student for the last seven years. Crystal had not been given a concrete reason as to why she hadn't been given one. Luckily, that same year, she was given a student.

Crystal's practise as a preceptor consisted of debriefing after every call and allowing student-led discussions on areas of improvement. Due to the rural areas that she worked in and the minimal call volume, she found it important to spend time doing scenarios with her students. This allowed her students the chance to prove their skills and ensure that they were prepared when it came time to graduate. It is nearly impossible for students to witness every medical emergency scenario, which means Crystal was required to give them the tools they needed to be able to figure out what to do in each very different and dynamic situation. She was very open and flexible with her students and went with the flow. When she noticed her students struggling in one specific area, she would take the time to address that problem and then move on. This style was similar to that of her preceptors.

One experience that Crystal brought to light during the interview, and something she found very difficult, was having a language barrier between her and her student. Although this student in particular spoke English well, they had taken their paramedic program in French. The student became familiar with the medical terminology in French but not in English. Since Crystal does not speak French, this made their communication difficult at times. She felt that, on top of the language barrier, this student did not have a lot of drive. She gave a specific example below.

> Just doing the base duties and stuff, I'd vacuum, and our vacuum is on wheels like most vacuums, and he would push the vacuum behind me. You know, he didn't have that self-motivation that, okay, she's vacuuming maybe I'll do the garbage, you know. Like, he needed a lot of direction, so

> I don't know if it was just him or if it was translating from English to French and then back.

In order to help her student, she attempted to ask questions in a variety of different ways, but it was still very difficult. She described how this student was very good in terms of managing the patient and knowing how to proceed but lacked proficiency in the terminology portion. Crystal felt as though some pairing or student preceptor matching would have been beneficial in this instance.

Another difficult experience Crystal had with one of her students revolved around their lack of social skills. This was a high school student that Crystal had taken on as part of the co-op program.

> Even my partner and other people tried… I mean, I consulted his teacher as well, and we ended up so-called firing him from his high school placement. I met him three or four years later, and he thanked me for that… I felt horrible because he was almost at the end of his semester, but he said, "That gave me the kick in the pants that I needed."

While this was a difficult decision for Crystal at the time, her encounter with this student later down the line reassured her that she had made the right decision and had helped him get back on the right track. Overall, Crystal found that there was a large difference between precepting her high school co-op students versus her primary care paramedic students. The high school students did not have much background education in paramedicine compared to the primary care paramedic students. They were also younger in age and, more often than not, took the program less seriously than the primary care paramedic students.

> We did a call with my last student. The patient said he fell off the wagon, and because he was nineteen, he'd never heard that expression before, he

> literally thought he fell off a wagon. So, I mean, I tried to steer the conversation, without embarrassing him. I kind of steered the conversation and said, "okay so how much did you have to drink," then he started cluing in, but it was just those little expressions and things that were common to me aren't common to that newer generation, so yeah. I mean, just where the 40-year-old student would understand that, right.

Crystal found that her experience with her last student was different from her previous experiences. She attributed some of this to COVID, stating that her student lacked hands-on skills due to all the online learning he was forced to do during the pandemic. She found she had to refocus her teaching on hands-on skills like injections and the way certain equipment works. The second part she attributed to her life experience. Crystal feels as though her personal life experience has helped her become a better preceptor. She specifically reflected on her experience as a new mom and how this has made her more aware of her safety demands. She feels she approaches things differently and more cautiously due to her age. She specifically stated, "I know becoming a parent changed my job, so just having those little extra experiences and, you know, your kids are counting on you to come home, you don't take the extra risk." Crystal also described herself as being less excitable than she used to be and more confident in her skills.

> Compared to my last student that I've had, I think things have changed a lot. We are a lot more go out there and do it and show us you can do, where I felt [as a student] I was a little more handheld and protected. I kind of let him go and made him prove himself to me, and I mean, by the end, he was running the call and telling us what we needed to do because that's what I

> wanted to hear from him, you know, get me a blood sugar, get me this, get me that.

As part of Crystal's experience, the responsibility of her students was shared between herself and her partner. Crystal's new work schedule had her rotating between three different partners over a seven-day period. This meant that she had a greater responsibility of the student, with the agreement that these three partners assisted her in teaching them. This new experience allowed Crystal to feel more in charge. She explained how some of her partners had not been great at explaining things or how they would have some disagreements, which led to confusion for her students. In this regard, she was also able to keep a better eye on her student, knowing that she had the sole responsibility for his education during preceptorship. This allowed her to pick up on more subtle cues about when they were struggling or needed more assistance.

Crystal spoke highly of being a preceptor and was proud that she has had the privilege of making an impact on the next generation of paramedics. She feels as though her experience is both beneficial to herself and her students.

> Having a student, I find, always keeps me fresh because they've just gone through a college program… They have new techniques, so I mean, sometimes they're teaching us as well, so I would say that's the positive.

### *Conclusion*

Crystal concluded the interview with a number of recommendations which she thought could improve the services that paramedics provide as preceptors. Her four main recommendations were to implement a summer student preceptorship, have more preceptor training, more communication and guidelines from the college the student is coming from, and have a broader evaluation process. Crystal felt it would be beneficial to have a summer preceptorship program as

the paramedic service she works for has a higher call volume in the summer due to its location. Typically, student preceptorship runs in the winter months, from January to April. The paramedic service that Crystal works for has a larger population in the summer. Having students complete their preceptorship in the summer would allow them to experience a higher call volume and, in turn, more hands-on experience with patients. While they do have a good number of trauma calls and calls that require boat access, she felt they missed out on the call volume. Crystals' second recommendation was to implement a preceptor course as well as the requirement of a certain amount of experience prior to becoming a preceptor. She described how she had not put thought into how it would run logistically, but the goal was to learn what things a preceptor is supposed to impart on their student. She also recommends more communication between the preceptors and the college where their students come from. She expressed how she would have liked to be given more of a guideline on what knowledge the students have from the theoretical portion of their education and what they still require to graduate. Crystal's final recommendation was to include a broader evaluation process, including a larger breakdown of the skills required. She referenced how many of the skills are grouped into one category, but she feels expanding these into smaller categories would make more sense. She felt doing so would allow her to better demonstrate a more detailed evaluation and help the student work on their areas of weakness.

**Cassandra's Narrative**

Cassandra is an advanced care paramedic and has been working in the field for 15 years. She completed two paramedic preceptorships in different paramedic services, one as a primary care paramedic student and one as an advanced care paramedic student. She currently works in the same paramedic service where she completed her second preceptorship. Cassandra also works as a part-time primary care paramedic instructor at a community college in Ontario. She has

completed her undergraduate degree at a large university in Ontario and is working on completing her master's degree in community health on mental health and addiction. At the time of the interview, Cassandra was working as part of the mass vaccination team within her service. This meant that she was delivering COVID-19 vaccines to the citizens within her region.

### *Primary Care Paramedic Student*

Cassandra began the interview by stating, "I had a really excellent PCP preceptorship experience." She described her preceptors as senior paramedics who were both very supportive in different ways. One of them was described as "a hard-core union guy" with 30 years of experience, which helped prepare Cassandra for the politics involved in the job as well as made her aware of her rights as a paramedic. Her other preceptor came recommended to her. She described him as very supportive on calls and represented the practicalities of the job. He was the one that taught her the hands-on skills, the way to run a call, and how to ensure everyone's safety.

> For example, when I go to a call and I knock on somebody's door, I'll always stand to the side, and he taught me that fifteen years ago, and I'll always remember that.

This preceptor had about 20 years of experience working as a paramedic and had a background in volunteer firefighting and teaching at the same college she had gone to.

Cassandra described how her preceptors set her up for success in becoming a paramedic. She discussed how today she is so appreciative to have had her preceptors and her positive experience.

> I feel very lucky now, having been in the job for quite some time, that I feel like that was a really good and supportive environment to come up in, and I didn't realize at the time that a lot of people don't have that and have

> like this really awful preceptorship experience where they feel like they either weren't supported, or they didn't even have fun, and it didn't set them up for a good positive outlook in the profession, so I feel really lucky to have had that as a PCP.

While Cassandra didn't provide many specific experiences during her primary care paramedic preceptorship, she described having a positive experience which influenced her practise as a paramedic and preceptor.

### *Advanced Care Paramedic Student*

During Cassandra's advanced care paramedic preceptorship, she felt her experience as a primary care paramedic gave her a better idea of what to expect throughout her preceptorship. During her preceptorship, she had done what she was told to do because she didn't know any better. She stated, "I think when I became an ACP student, I really was, like, looking for more of an experience." She was looking to challenge herself, to figure things out on her own in an environment she felt safe to fail in. Cassandra was able to vouch for herself to make sure she enjoyed her experience and made it as educational as possible.

Cassandra was her preceptor's first advanced care paramedic student. She described him as very supportive, which allowed her to explore and figure things out on her own. "He would step back, and he would allow me to fail, but then I never felt like a failure, if that makes sense." This experience was described as very positive and educational, both as an advanced care paramedic student and as a preceptor. Her preceptors gave her the perfect amount of guidance and freedom that she required in order to be successful in her learning. She stated, "For me, having a good preceptor made all the difference in my experience, so I think that's the most important thing for having success both as a preceptor and a student."

***Preceptor***

When Cassandra became a primary care paramedic preceptor, there were no specific requirements. She explained that those who were interested in being preceptors would express their interest to management and then would be given a student. For Cassandra to become an advanced care paramedic preceptor, she had to take a preceptor course and have a minimum of two years of experience as an advanced care paramedic. The course was a one-day online learning course that focused on adult learning. While she found this course helpful, she thought there were many important aspects that were missing.

Cassandra has had about half a dozen primary care paramedic students. She had not taken on any advanced care paramedic students yet due to a change in roles. She described herself as a very supportive preceptor and spoke about how she has taken on the same role as her preceptors. During the interview, she stated, “I felt like I wanted to model his style of preceptorship in terms of like being really really supportive but not in the way where you just kind of like do things for people.” While she strived to be a supportive preceptor that allowed her students’ freedom, she discussed how this style was difficult to adopt. She had to form a relationship that allowed her students to feel safe to fail, to be vulnerable but feel confident enough to properly receive and implement the feedback she had given them. Forming this type of relationship can be difficult due to most paramedics having a very strong type A personality.

> I think it can be really really really hard thing to navigate, especially when you’re doing the ACP preceptor thing because this is a co-worker. This isn’t a student from a college who you know, and there’s this hierarchy, and you’re the experienced paramedic, and they’re the student who doesn’t know anything.

Cassandra stated, “If you don’t set up that relationship properly, you might come up against a lot of personality conflicts.” She found that teaching advanced care paramedic skills was easier than setting up this supportive learning environment. Luckily, in Cassandra’s experience, she has been fortunate enough to not have experienced any of these conflicts with her own students.

> I’ve never had a situation where I really did not want to keep a student, either because they weren’t performing well or because we were having personality conflicts, so I’ve been lucky in that way, but I do know of a lot of times that there have been a lot of conflicts… I think they should put more effort into making good pairings for preceptors and students.

Cassandra described the steps she took as a preceptor in order to create this supportive relationship with her students and how she moved forward from there. On the very first day Cassandra received a student, she would speak with the student to discuss both her own and the student’s expectations.

> I just set it up, like, I expect you to have questions, I expect you to do poorly, and I expect you to fail, and we’ll learn together. I usually talk about my own failures and my own struggles… I learned the most from the times that I didn’t do well. I don’t know if it’s a little bit lame but I think it’s important to set that up in the beginning and then I just try to be really humble I guess in terms of being like, you know, I don’t know everything, I don’t go to every call and know what I’m doing, half the time I’m just figuring it out as I go along too, so don’t worry about it, we’ll figure it out together and then hopefully build that relationship so that they feel like it’s okay to perform poorly.

Cassandra preferred to stick to a structure when precepting but acknowledged that every student learns differently. She has remained flexible in order to help give her students what they need.

> I do think that there is something to be said for having some structure, and I do think that's the way students want you to be or the way they think they're going to get the best experience, but then that might not be the best way to do it. So, I do find having some structure is good.

She described her structure as linear in nature, progressing slowly from observation to gradually adding more difficult tasks. She has always taken into consideration the students' requests in terms of how involved they wanted to start off. This was important to her because she knew every student had their own limits.

> It is, like I said, a fine line. You don't want to push them in a way that then they're going to be freaked out and feel like they weren't ready and you made them do something that they weren't ready to do, but I feel like sometimes they need that push when they don't want it.

Progressively, Cassandra would continue to increase both the number and the difficulty of the tasks. She feels that developing that initial relationship is crucial in order for her to be able to determine when her student is ready to be moved on to performing more difficult skills. She often got this information from her students when they would debrief the call. This would help her determine if her student is continuing to progress or if they need to take a step back together.

> If they say I was like super overwhelmed, then you can be like, okay, well then maybe they were not ready to do a little bit more, or if they start talking about something that was really out in left field then I'll be like,

> oh, maybe you didn't really get what was going on yet and maybe we need to talk about that.

Cassandra discussed how there were very different dynamics between her students. This stemmed mainly from their previous life experiences and exposure. One of Cassandra's students was coming into paramedicine as her fifth career. She was middle-aged with two kids, and she said, "She was miles ahead of most students" in terms of her social skills. Similarly, she has found that those who have larger responsibilities tend to take the process more seriously. She gave an example of some of her students who had larger student loans to pay off and/or children to take care of physically and financially, being more determined and focused on their success. Cassandra found that this life experience could also lead to a less mouldable individual: "I do think sometimes it can be difficult because people can be a little set in their ways."

As a preceptor, Cassandra explained how she has made many mistakes. She described how, over the last fifteen years, she has gained a lot of experience both as a paramedic and in life. This life experience has helped her realize that she would have done things very differently as a preceptor when she first began if she had had the wisdom she has today. She stated, "I've put a lot of my own expectations on people that I shouldn't have." Cassandra has been back to school and has learned a lot about giving and receiving feedback, assessments, program evaluations, and personal growth. "Just learning that and doing personal growth stuff myself has made me better." These things combined have made her feel more confident as a preceptor. The extra knowledge and life experience has allowed her to reflect on her practise as a preceptor, gaining more perspectives on the different possible approaches to her teaching. While Cassandra described life experience as very beneficial in her journey of being a preceptor, she also discussed how having too much road experience could also hinder a student's experience.

> Part of the reason I think I shouldn't be a preceptor anymore is, I think, because one, I've been on the road too long, which I know isn't that long, I know fifteen years isn't that long, but I think actually more junior people probably make better preceptors, and two, I think that I'm less engaged because I'm doing all this other stuff outside of the road, like, my own schooling and stuff. I'm less engaged with doing calls, so I think that that also makes me not as good, like, I think there's some advantage to my experience and my schooling and my training and all that, but I actually think more junior people make better preceptors.

This led her to discuss how experience wasn't the sole factor in determining a good preceptor. Many paramedics don't keep up to date with the most recent medical knowledge. She used the example of driving in order to explain her theory. Those that just get their licence typically know all the rules of the road. This newer driver might be better at teaching someone the theoretical aspects of driving, whereas a more experienced driver is typically the better driver but no longer has all of the theoretical knowledge readily available. Cassandra stated, "I think, honestly, it's the person. It's the same as anything, you get out of it what you put into it. No matter what online training program, or in-person training program, or qualifications you require of a preceptor."

Cassandra discussed her opinions and views on paramedic preceptor incentives, as well as her experience with them.

> There's not a ton of incentive for paramedics to be preceptors other than, like I said, this feeling of responsibility. Someone took me on as a student once upon a time ago and I have a responsibility to do that. But really,

> there's no incentive to be a preceptor other than you have this feeling that it's part of your professional development to precept students.

On one hand, she believed having a financial incentive for preceptors would encourage them to maintain high quality and standards. By this, she meant being able to enforce specific training and maintain timelines. Putting expectations on the preceptor and feeling confident that they will respect them due to their financial compensation. Cassandra felt as though this would not be feasible if the preceptors were not given any incentive. However, on the other hand, she was worried that this would attract the wrong type of people to become preceptors.

> No matter what online training program, or in-person training program, or qualifications you require of a preceptor, you're going to have people who are good and bad. It's the same as being a paramedic. Right. You can have everybody go through the same program, but you're going to have people who are more engaged and actively involved who are just better than others.

With the discussion of preceptor training programs, Cassandra came to the realization that there might also be an advantage to personality-based pairing between preceptors and students.

> You're also going to get relationships between preceptors and students that just work and others that just don't work. So, I think even more so than just a good program for preceptors, it might be beneficial to have a good program that aligns preceptors with students.

She described how she had previously requested to have a student that had gone to the same college as herself but was denied this request. She felt coming from the same background would have

helped align them. She stated, “You understand their process more because you’ve seen them in the lab and you’ve seen how that runs and having gone there myself, like, I feel like I understand that system.” She thought she could have also helped guide her students based on where she felt she had lacked during her learning. In addition to that, she stated, “For me having a good preceptor made all the difference in my experience, so I think that’s the most important thing for having success both as a preceptor and a student.” On the same topic, Cassandra thought it would be beneficial to pair preceptors and students based on their strengths and weaknesses. However, she stated, “It’s also a logistical nightmare to move people around.”

Cassandra talked about the decisions a preceptor must make and the difficulties that come along with them. Within the paramedic service that she works for, they have implemented a process that helps relieve some of these difficulties as well as potential biases. Once the student has finished their required hours for preceptorship, they are to complete a few extra shifts with a new pair of preceptors.

> It’s set up as a mutually beneficial thing, right, because if you’re the preceptor who says, “Look, I think this student is really struggling, but I don’t want to be the only one to have eyes on this person to determine their fate,” you can send them to four other people who will say, “Yeah, you’re right, this person is struggling, they need more time.” Or you can say, as a student, you can say, “Look, I think I’m doing amazing and my preceptor is being really hard on me and I think that’s unfair and I think that I’m ready to move on.” Then you can go to four other people, and they can say, “Yes, that’s an accurate assessment.” Or not.

The goal is to assist the initial preceptors in being sure that the student is either ready to graduate or must be failed. Cassandra was appreciative of this program due to how it alleviated some of the pressure off the preceptors in reassuring their decisions but also protected the student from any biases from the preceptor.

Mental health was a very important topic for Cassandra. She spoke highly about the importance of mental health and well-being. She has experienced students struggling with their mental health.

> I've had times where students are struggling themselves, like they're having a hard time managing their workload, or they're feeling too overwhelmed, or they're having a mental health crisis, things like that. So, I've had issues where I've dealt with that a lot and the college is receptive to and offers support. I've had students participate in like critical incidents with the service and in critical incident debriefings and stuff like that with the service, and I think it's always gone fairly well. I think there's a little bit, I guess, of a disconnect in terms of knowing what services are offered to students specifically.

Cassandra struggled in terms of finding out what services were available to her students, compared to those that were available to herself. She has had many experiences with mental health and stated, "I'm a little bit lucky where I think that I have some good awareness of when people are struggling and how to support them in that, but in terms of from an actual preceptor experience." This experience has helped her identify when her students have been struggling. This is a topic that she believes would be beneficial to include in a preceptor program.

> So, I think there should be, and I might be biased because I'm doing mental health school, but I think we could benefit way more from a focus there as opposed to a focus on adult learning.

Cassandra discussed how she had taken on a student once while her partner was in a negative headspace and how this had taken a toll on all three of them. She spoke about how the partnership took a lot out of her to begin with. She had decided, for both her mental well-being and those of the students, that she would not be taking any students with that same partner again. While Cassandra had the background knowledge and education to recognize this potentially negative environment, she feels as though many other paramedics might not have realized it and it could have had an effect on all the individuals involved.

On a similar note, Cassandra felt that this mental health training would be beneficial due to the high stress and demands of the job, on top of the added responsibilities when taking on a student.

> I think you're putting yourself out there almost to be injured, like, you're seeking out all these really bad calls with this person and you're trying to like support them in becoming an ACP and then you're like also trying to manage these really high acuity calls yourself and a large volume of high acuity calls and you're expected to be the one responsible for those calls and for this one person and support them in doing that. I think, like, that's where I would really want the training and the support, not like here's how adults learn, like, great but now how do you support yourself and others doing this work.

Overall, Cassandra's views and opinions are as follows: she feels as though preceptors and students would benefit from student pairing. She believes preceptors should be offered more training on the support offered to both preceptors and students, as well as debriefing and feedback. She stated, "I think we have a horrible cycle of okay, we trained you on that and you're never going to be trained on it ever again. Like, it's just never going to work, you know, you can't learn something once and remember it forever." She believes in having more support for preceptors in terms of mental health and well-being. She expressed how the added responsibility of having a student and watching out for both yourself and the student can cause increased occupational stress injuries. She feels as though there are some educational requirements, but they are not continual.

> I think it has to be ongoing training. I think we need to have this culture of, like, always training. I'm just speaking for my service, but I think we have a horrible cycle of okay, we trained you on that, and you're never going to be trained on it ever again.

She believes that this will only be achieved once there is a culture change within the paramedic service. She referenced how it was an expectation once you become a physician to maintain up-to-date medical knowledge, and questioned why the same is not withheld within paramedicine.

### *Conclusion*

Cassandra spoke a lot about self-improvement, and she continues to take courses for self-development. She is currently taking a course in assessment and program evaluation. She believes strongly in mental well-being, strong relationships, and supportive environments. She spoke more about her experiences as a preceptor than as a student, highlighting her views and opinions on certain topics rather than divulging specific experiences.

Cassandra described how she had a very positive preceptorship experience all around and how she has really enjoyed being a preceptor herself. She finds it both challenging and rewarding at the same time.

> I find it keeps you a little bit on your toes; you can remember the rules of the road again and get back into it a little bit. I think it's great for people to be preceptors, and I think we could really value it in terms of professional development and staying competent as paramedics, but I don't think that we do currently.

She was very appreciative of the opportunities she has been given to help educate the future generation of paramedics. She began to conclude the interview by stating:

> I mean, it's unfortunate, but it's going to have to come down to a culture change where we have this shift in culture where we acknowledge and value ongoing learning as a way to support students, as a way to support our own professional advancement, or even just to maintain ourselves in our profession.

Overall, Cassandra views preceptorship as something that should be valued by both the preceptor and the student and requires more acknowledgement as a whole in order to gain and maintain high levels of success and professionalism.

**Matt's Narrative**

Matt was 27 years old when he first became a paramedic and at the time of the interview had been working as a paramedic for over 15 years. He received his diploma at a community college in a suburban city in Ontario. He completed two separate preceptorships, both in the same

urban city in Ontario, one to become a primary care paramedic and a second one a few years later to become an advanced care paramedic. He now works part-time for the same urban paramedic service in Ontario and full-time as an instructor for a community college teaching sciences, anatomy and physiology and pathophysiology for the paramedic program. Matt has a strong background as an educator, with a master's degree in education and has previously been an instructor, instructor trainer, and examiner for the life savings society for St. John's ambulance and Red Cross.

### *Primary Care Paramedic Student*

Prior to Matt's preceptorship, some of his lab instructors had offered to take him out on a few unofficial ride-along shifts with a different urban paramedic service in Ontario. This allowed him to gain some observational experience prior to beginning his official preceptorship. He recalled that during these unofficial ride-along shifts, he learned a very valuable lesson that he still uses today. He was told by one of his lab instructors the importance of listening to what each and every paramedic said and advised him to take their rationale into consideration but to think it through on his own. Matt has encountered many paramedics throughout his educational journey as well as throughout his career as a paramedic, and this information has stuck with him and has helped him develop into the paramedic and instructor he is today.

During paramedic preceptorship, students are paired with a set of preceptors, two paramedics that work together on a regular rotation. However, Matt had a slightly different experience. Matt's preceptor, James, had about three years' experience on the road and had never taken on a student before. James' regular partner had been in an accident and would not be returning to work, which meant Matt's preceptor would not have one consistent partner. This came with the challenges of constantly meeting new people and learning how they practise paramedicine. However, Matt found that most of the people he met and worked alongside were

willing to help. During the interview, he recalled, “the vast majority were really engaging, so I got to hear a lot of different perspectives early on.” Matt described how appreciative he was of this experience. He was able to observe many different perspectives and techniques, which he viewed as extremely beneficial.

> I had the consistency of the one preceptor; it was very good and he really looked out for my learning, but I also got exposed to a lot of different styles; I got to see a lot of different medics and PCP’s and ACP’s; you know, different approaches to how they would do calls.

Matt was able to take the different styles and approaches he observed and tweak them in order to develop his own practise.

Matt later discussed how James, his preceptor, was a very good match for him in terms of his learning styles; “We got along really well, had very good discussions about debrief and calls.” He described James as someone who was “very by the book,” driven and knowledgeable. Matt believes these things came from James’ own student preceptorship experiences; things that he is now passing down to his own students. In terms of educational background, James had done massage therapy prior to becoming a paramedic. This background education allowed Matt to learn more in depth musculoskeletal assessments and helped him with his differential diagnoses. He stated during the interview, “I don’t think he still is a massage therapist, but that was also very interesting because that was a different perspective and an idea of the different things you could learn.”

About halfway through Matt’s preceptorship, James secured a permanent partner. This new partner, Mark, was highly respected within the paramedic service. Matt portrayed this image by stating, “In terms of quality, competence and attitude, he was easily at the top of that list.” Mark

had worked as a CN rail constable prior to becoming a paramedic. Matt's initial preceptor, James, had been precepted by Mark when he was a student. James had developed into a similar paramedic and preceptor as Mark was, leading the two preceptors to have very similar views in terms of paramedicine as well as education. They specifically focused on keeping an open learning environment, which made Matt feel comfortable and allowed him to thrive. He was treated like a colleague, "a member of the team." He was aware of the hierarchy and maintained professionalism but never felt demeaned. Matt described how he had seen his classmates negatively experience the hierarchical power differences between students and their preceptors.

> I've seen it with other medics and other preceptors. The medics are in the station reclining on the couch watching TV and the students are deep cleaning the truck.

In Matt's experience, this was never the case. All the required tasks, good or bad, were completed as a team. Matt maintained that he knew his place and would give up his seat if another paramedic came into the room. He stated, "We all pay our dues, we all show our respect." Matt views respect as being polite and courteous to other paramedics and potential colleagues, not as taking over the work the preceptors did not want to do. His preceptors had taught him that they were there to help guide him through the process of becoming a paramedic, to teach him the specifics of the job on the road, and not to have him do the "lousy tasks." This was a partnership where he could look up to his preceptors as models and they would work together to develop him as a paramedic.

> I find they really instilled a very strong sense of the importance of the preceptor as a mentor and as a coach, not in that hierarchical teacher-student kind of imbalance.

Matt was taught many things throughout his preceptorship experience, but there were a few lessons that stuck out to him. He stated, “Both James and Mark instilled in me a sense of purpose, a dedication to my patient, to seek out knowledge like my life depended on it, not just the patients.” He learned to be very methodical and logical in order to stay several steps ahead of the call, to be prepared for anything that could happen, and to never accept complacency or laziness. He described how Mark had a very calm demeanour, which stemmed from his preparedness and ability to stay several steps ahead of the call. Matt gave a few examples of how he gained experience in staying ahead and being prepared by cleaning the stretcher in a specific order so that when it was needed, all the equipment was set up and ready to go, as well as ensuring the stretcher was positioned in a way that made getting the patient on the stretcher as easy and quickly as possible, “the tricks of the trade,” as he called it.

Matt was impressed with how Mark was so kind, caring, and compassionate towards all his patients, even after having been a paramedic for a long time. He was intrigued that Mark didn’t show any signs of burnout like many other paramedics. Everything that Matt had learned throughout his preceptorship was what he attributed to Mark’s success in staying humble and kind. “You adopt the style of your preceptor in your preceptorship, and in some cases, it creates that sort of foundational style that you base your care on.” Matt stated that he had a very good primary care preceptorship experience, and he was very proud of the strong work ethic and values that were instilled in him throughout the process. He was proud and took pride in both James and Mark.

> I consider it a great honour that I can list myself among their students, and that I had the privilege of riding out with them. I can only hope that in 10-15 years I’ll have people think back and say, “Hey, I got to be Matt’s student.”

### *Advanced Care Paramedic student*

When completing the advanced care paramedic preceptorship, most individuals are already working for a paramedic service as a primary care paramedic. Some paramedic services in Ontario will agree to pay their employees at their regular rate as a primary care paramedic, while they complete their advanced care paramedic preceptorship. For this reason, Matt completed his advanced care paramedic preceptorship at the same urban paramedic service that he was working for. Since Matt completed his advanced care paramedic preceptorship in the same service he was currently working in, he knew a lot, if not all, of the paramedics there. This meant that his preceptors would be his colleagues, which created a whole new dynamic for Matt.

> There's a whole other relationship dynamic there, and I think now ACP preceptors usually have a bit more of an understanding of that mentorship or coaching role because this is already a colleague. This is someone who you may have worked with last week as a PCP, and now they're upgrading to ACP. You may already have that relationship established.

He discussed how his ACP schooling came easy for him and that he was a strong student academically. Before he began his preceptorship, Matt was given the opportunity to submit a list of his top three preceptor choices but was unfortunately not paired with any of them. He was very happy and satisfied with the preceptors he was given. However, he questioned why he didn't get paired with one of his top three choices. When Matt inquired about this, he was informed that his choices consisted of very strong preceptors, which they try to reserve for the students that require more help and guidance. He was told that they were confident that he would thrive with whomever they placed him with as he was such a strong student.

Matt was initially paired with a preceptor he had met during his hospital clinical rotations. He recalled, “She was a very strong personality and a lot of people found her very intimidating, as did I before clinicals.” During his hospital clinicals, Matt quickly realized he learned very well from her, which made him very excited to have been paired with her as a preceptor. Unfortunately, this preceptor had a lot of summer vacation booked, which led Matt to receive a new preceptor about one week later. Matt’s new preceptor, Davis, was someone who had never precepted an ACP student and had no previous educational background. Davis had a reputation of being a “cowboy”, as stated by Matt. He described this as meaning that an individual performs medical acts for themselves and for the experience rather than for the patient. Matt affirms that Davis always had the patients’ best interests in mind and never performed unnecessary procedures for his own experience.

> He didn’t do unnecessary procedures; he didn’t do things just because he could; he did them because they were in the best interest of the patient. But he knew his medications so well that he was not shy about patching for something that we had no orders for.

Many advanced care paramedics work their way up from the least invasive medical procedures to the most invasive, but Davis was more aggressive in his approach. Matt described how Davis always sought out the best possible options and outcomes for his patients, which was accomplished by staying up to date on current medical knowledge and research, and by speaking with physicians over the phone, discussing certain cases or requesting certain medical orders. “I gained a lot of respect for him because he knew his drugs inside and out, he knew what they could do, on and off label uses.” Matt was surprised when he found himself practising paramedicine in the same way that Davis did.

> I tend to of adopted that style, which I found very surprising because one thing that I've also seen, probably more so at the ACP level, but I would say it happens with both, is students tend to adopt the style of their preceptor at any level, as a matter of necessity or ease and familiarity.

Overall, from Matt's narrative account of his experience as a student, it is clear that he learned a lot of valuable lessons from his preceptors, including but not limited to: the importance of treating others with respect, as if they were a colleague or team member, and maintaining a high level of education and remaining up to date on new medical advances. The knowledge and information that was taught to him gave him his foundation on how to be a paramedic and modelled how to be a good preceptor. In the next section, we can see how these experiences informed him as a preceptor and as an educator.

***Preceptor***

Matt had a good preceptorship experience as a student and has taken on many of the same styles as his preceptors. He described how much of what he learned about how to be a good preceptor was modelled for him by his very own preceptors when he was a student. "I was very fortunate I had fantastic preceptors, so I do my best to pay that forward and to emulate what they instilled in me." One of the important lessons Matt learned from his preceptorship was the requirement of lifelong learning due to the nature of the career, "It's that self-reflective practise and reviewing, a commitment to improvement, that was something that I always admired, so I try to instill that into my students." He has devoted much of his time to continuously learning and improving himself, to treating his students with respect and dignity, to remaining understanding and humble. He noted that although he is the educator in this stance, there is always something that he can learn from his students, which has led him to remain open-minded in that aspect.

> Why wouldn't I show them respect and courtesy and, you know, they all come from different backgrounds and different experiences. There's always something I can learn from every one of my students, whether it's in class, whether it's precepting, I can always learn something.

During the interview, Matt stated that he had always agreed to match or exceed the amount of effort his students put in. He discussed how the difficulties of being a preceptor were dependent on the student you received. One of his students was very strong academically and very eager to learn. In this instance, Matt felt as though he didn't have much work to do other than model professionalism and provide some guidance. However, when he received students that required more assistance, he found the job to be more difficult. Matt was placed on a list of strong preceptors that could take on students that required more assistance and be successful in shaping these students to be good paramedics. He was flattered and proud to have been placed on this list. This allowed him to come to the realization that each student is different; their needs and requirements all vary.

> The student that I got was all attitude, she was very smart, there was no issue about her knowledge, it was all about attitude, so she needed someone that would role model professionalism and those aspects, so I was asked to take her on.

These differences are what makes the job as a paramedic difficult but very rewarding.

Although Matt has an extensive history with teaching and a personal interest in education and learning, he believes his successes as a preceptor stem mainly from his experiences as a student and as a paramedic, refining his techniques by trial and error. Alongside this, Matt discussed how being a preceptor comes with a legacy component, again referencing it to parenting.

> I think there is that legacy piece that you are, in the same way, very much like parenting but without that condescension, you are shaping someone very much in your image as what you think that paramedics should be and they're going to learn from you. They're learning all the time, whether it's what you intend.

Matt has taken on his role as a preceptor as one that teaches students on-the-job skills rather than going through the theoretical knowledge that they've already learned in school. He takes a lot of pride in being a preceptor and stated, "To me, you should precept because you want to teach, because you want to shape the next generation of paramedics." He views the role of a preceptor as a mentor or coach rather than a hierarchical teacher-student imbalance, as mentioned above. "The role is to shape them into the type of partner that we want on the truck. It's not about re-teaching, it's about application." He likes to use structure within his precepting techniques, referencing it to the job of a coach.

> I would view that the same way as a coach training an athlete. You don't just, if you're teaching them to do any sport, you don't just say, "Okay well have at it and I'll see what you do wrong." You build skills in a certain way; you build the skills of a sport until you're able to progress to different types of things.

Matt had taken on a student and allowed them to decide how they were going to approach his preceptorship. The student decided that he wanted to jump in with two feet and begin doing all the assessments right away. Matt explained that this approach didn't end up working, and only caused the student to lose confidence. Any time he made a mistake and was given feedback, he would close himself off more and more, to the point where he began to freeze up on calls. Matt later

realized that whether the students believed they were ready to begin full force or not, he was going to stick to the system he created.

> I do still have a system. I think having a system as a preceptor is important. Some preceptors are very much the sink or swim right. You walk in day one and okay, you're attending everything. In my experience, that can work for some, but you're mostly setting up your student for failure, and you're going to end up damaging their self-esteem and taking steps back in the learning process.

This system is one that he uses with both his primary care paramedic students and his advanced care paramedic students, with slight variations. The way he structures this system is based on a hierarchy, which gradually increases with the urgency of the situation. He allows the student to observe in the beginning and slowly introduces more prominent roles in increasingly difficult situations. Once the student masters the first step, he will move on to more difficult tasks. With that being said, he provides freedom within this structure and uses broad groupings in order to determine where the student should be practising. Matt stated, "I tell my students, their learning comes second only to the patient." He provides as much freedom and leeway as he possibly can, up until the point that a patient might be in danger, at which point he takes on a more active role.

> Wherever possible, you need to learn. You're not going to learn by constantly looking over your shoulder or looking for my approval to tell you whether you're on the right path. You need to develop that comfort on your own.

The system Matt created was based on trial and error with the many students he has taken on so far, and he continues to tweak it with every new student he receives. He recognizes that the

requirements for each student will all differ to a certain extent, but he maintains that this is the approach he believes works best for himself as well as his students. “I do have a system and a process, and again, the stronger the student, the faster they get there, the faster they move along.” This method has worked well for Matt, allowing him the ability to slowly introduce the student to the field, to observe and grasp the student’s baseline, and to recognize the areas of weakness that need improvement. “My experience has shown me that this is the better way to scaffold your learning, and if we jump too far ahead, it’s going to be to your detriment.” This allows Matt to provide feedback, debrief, and maintain consistency between each of his students.

Matt strongly believes there is value in continual preceptor training, and that one of the major areas that lacked in the previous training he received was teaching strategy suggestions and a lack of consistency between preceptors. “There is a need for some consistency from the agency that say, well this is what we expect regardless of how you were precepted.” He discussed how it would have been useful to have an outline in order to follow initially and then be able to tailor it to how he saw fit best based on his experiences with his own students. Matt recounted that he’s aware of how each student is different and requires a different amount of support and guidance but having such an outline would allow preceptors to better prepare students for the job at the same level.

> I think there’s value in having something that equalizes it to say, regardless of how you were trained, this is how we train, and this is how you will now train. This is our expectation and an introduction to adult education principles and learning principles because many of them will have never really been through that and that’s important. Beyond that, you really learn the most through trial and error.

Matt concluded the interview by describing the multiple attempts different paramedic services have made in order to regulate and create an educational framework for preceptors. There was a wide variability in the training that he had received. Most of these initiatives have since been dropped due to a variety of different reasons, including but not limited to: having too many students and not enough preceptors; and having participants participate solely to get the required credits to maintain their certification, etc. In this case, multiple paramedic services have attempted to develop a program for preceptor training, but it is not obvious how to complete this task successfully.

### *Conclusion*

Matt felt a need and a responsibility to pass along the things he learned throughout his preceptorship to his students. He believes the preceptor you become stems from the experience you had as a student: "You either emulate what you had as a preceptor, or you want to be everything that they weren't." There is this idea that, whether it be a positive or negative experience during preceptorship, the type of paramedic and preceptor you become depends on the experience you had. Matt compared this idea to the example of parenting. He expressed that he believes the way a parent influences their child in terms of their values and attitudes is related to how a preceptor can influence their student. Rather than conveying parental advice, they reflect more on the students' individual practises and attitudes towards paramedicine in a parental manner. In that same regard, similar to parenting, part of the pride taken in being a preceptor is the outcome of the student. "I want my students to represent me well, because that's also part of the legacy as a preceptor."

Matt strongly believes that education is beneficial. However, he recognizes that experience plays a large role.

> I think it's interesting. It certainly means that you don't have to have come from that background. You can have someone that's never really had any formal training in education and yet are some of the best educators I've known in terms of their approaches.

Although Matt believes the success of a preceptor relies on many different factors, he thinks his positive experiences during his preceptorship as a student have led him to become the preceptor he is today.

> So, in all of my cases, I had phenomenal preceptors that again all modeled and exemplified the utmost professionalism, competence, knowledge, and a constant desire for self-improvement, so I try to pass that along as well.

**Kurt's Narrative**

Kurt was the participant with the most amount of experience working as a paramedic and was the only one that is currently retired. He worked in the army for four years before he completed his paramedic program in the 1980s. He worked as a primary care paramedic for 10 years in a rural paramedic service. The service he was working for at the time amalgamated with five other services. After the amalgamation, Kurt was moved to work for a large urban city in Ontario, rather than a rural one. After having worked in the city for a year, Kurt went on to complete his advanced care paramedic certification, meaning that he completed two preceptorships, one to become a primary care paramedic and a second one to become an advanced care paramedic. He worked as an advanced care paramedic on land for four more years until he began to work for an air ambulance service. During this time, Kurt got some teaching experience by instructing multiple different courses, including first aid, CPR, and a trauma life support course. Kurt moved on to work in a management position within the same urban paramedic service that he previously

worked for, overseeing the operations section. He also spent some time running the technical services, specifically responsible for education. After 35 years of working in the industry, Kurt has now been retired for about 5 years. In the interview, he predominantly focused on the kinds of practises he likes to see in the training and education of paramedics. He has had many years to ponder these ideas and has had some opportunities to put these thoughts into practice.

### *Primary Care Paramedic Student*

Kurt began his interview by describing how different the education system was when he had completed his schooling to become a paramedic. He stated, "Preceptorship back in the early 80s when I did it, the program was a one-year program and preceptorship was a few months for sure, not as extensive as it is now." He described how the program had felt very rushed to him as a student, and how they had completed three semesters in a 10-month period. Kurt described how he felt his experience during preceptorship was very disorganized. He addressed how he had left a military background, a very structured environment, to go to college in an "unstructured and disorganized" program and how difficult this had been for him. On top of this, Kurt had experienced the teachers' going on strike. It had lasted for about one month prior to their return to work. During that one-month period, Kurt was expected to continue the curriculum, by teaching himself the material. Once the teachers returned to work, the students were expected to have kept on schedule with the syllabus, as they were going to continue based on where they were supposed to be at that time and not where they had left off. Kurt found this situation to be difficult and spoke to how this only added to the disorganization that he had already been experiencing.

During Kurt's preceptorship, he felt as though there was a lack of structure. He stated that he had no consistency in preceptors and that the main goal was just to get hours on the ambulance. Kurt was paired with multiple people and did not have one set of preceptors. He found this to be very difficult and again reiterated how this challenged his learning.

> It didn't seem to me that there was sufficient structure at the time; it was just really on road experience; get on the truck and see what you can see and do what you can do. There didn't seem to be any terminal objectives other than to get time on the truck.

Kurt described how the goal during most of his education was to have as many students get through the program and out onto the road as working paramedics. He stated, "I think it was a matter of just get them on the truck, so they get the checkbox ticked."

Kurt expressed how he found throughout his preceptorship he was taught how to survive the job, not how to be a good paramedic. By this, he meant that he was taught all the tricks, or loopholes, in order to make the job easier.

> Delayed booking tactics that you might not have heard of, but that's what they used to do so you could get some downtime, you know, all of the things paramedics do, those things that help you get through the shift instead of getting slammed with one call after another etc. I'm not saying I condoned it, but that's the kind of stuff you learned.

Overall, Kurt described having had a positive primary care paramedic preceptorship experience, however, he was affected by the lack of structure. In his view, the disorganization and lack of structure were an unacceptable part of his education.

### *Advanced Care Paramedic Student*

During the 1990s, Kurt described himself as being fortunate enough to be a part of one of the first advanced care paramedic programs that ever existed here in Ontario. His eleven years of experience as a primary care paramedic made him well established in the career, which allowed him to become an advanced care paramedic with ease. Since this advanced care paramedic and

advanced life support course was so new to Ontario, Kurt was expected to become a preceptor and begin taking students as soon as he graduated. This process was used in order to help get as many advanced care paramedics out as fast as they could. At the time, this program was completely funded by the government, which helped remove a lot of the financial burden that accompanied going back to school and, in turn, led to many individuals seeking to attend this program.

By the time Kurt graduated, he was the very first advanced care paramedic in the service that he was working for. This meant that Kurt was stretched thin to provide his advanced life support skills to as many people as he could. He was running from one cardiac arrest to the next, all day. Kurt discussed how they would do twelve to fourteen calls a shift. He would be scheduled for a twelve-hour shift, but often they would get stuck on overtime and have to do thirteen-to-fourteen-hour shifts.

While Kurt did not speak much about any specific experiences during his advanced care paramedic preceptorship, he described them as positive overall. He had decided that he wanted to become a preceptor so that he could emulate the knowledge that he had learned but modify the things he was not satisfied with during his own experience.

### *Preceptor*

Kurt waited a couple of years prior to becoming a primary care preceptor because, as he stated, “I wanted to be comfortable doing the job and I wanted to make sure I was good enough at it for myself before I wanted to help somebody else become a paramedic.” He reflected on his own experiences as a student and described how he did not want anyone to feel how he had felt as a student. He wanted to try to give his students the things that he didn’t get. Kurt felt it was important for him to give his students structure as well as to teach them how to be good paramedics and how to “survive the job,” giving students all aspects of the job.

Kurt called the rural service he had previously worked in "trauma central." This paramedic service covered a two-lane highway that had frequent motor vehicle collisions. Due to it being a small paramedic service, there were not many other ambulances around, which meant that often in Kurt's experience, the same paramedics would go to an accident, bring their first patient to the hospital, and then have to return to the same accident to take the second patient to the hospital. Since the area experienced a high number of trauma cases, Kurt explained that some preceptors would send their students to him for a couple of shifts so that they could get more experience.

> We could move our students around within the service, and we'd trade off, and they'd get varying experiences in the city, and then they'd get a lot more experience down south. You know, back then they had a lot of overdoses, traumas, and I say, lots of car accidents, hunting, and farming accidents. It was quite interesting.

Kurt described his experience of becoming an advanced care paramedic preceptor as "very interesting" because many of the students he was taking on were co-workers of his. He had the ability to precept a few of the same students during both their primary care paramedic preceptorships and their advanced care paramedic preceptorships. Kurt stated, "That was a real pleasure to do because you have the most highly motivated individuals. They have already done their PCP, they have gone through an extensive competition to get into the ACP program." After finishing his one-year advanced care paramedic program and preceptorship, he was put through a three-day preceptorship program and was forced to take a new advanced care paramedic student every six months. The program taught them "adult education principles," "different learning styles," and "character traits" and required them to pick one topic and develop a course outline for that topic as well as present it to their classmates. For about four to five years, Kurt continued to

take students every six months and kept them for about six to twelve weeks, depending on how quickly they succeeded in their progression through their preceptorship. Due to how busy it was for advanced care paramedics back then, Kurt stated, “Precepting in that environment was just amazing and you were able to produce excellent excellent clinicians because you got so much exposure.”

Kurt’s first advanced care paramedic student was someone that he had precepted as a primary care paramedic student as well. On the first day his student began, he gave him a ten-question quiz. It consisted of simple long-answer questions regarding things he should have learned in school. This was how Kurt got his information on the student’s baseline knowledge and got an idea of where he needed to start. Something Kurt highly valued was knowledge about pharmacology, especially as an advanced care paramedic. An advanced care paramedic can give a wider variety of medications for different health related emergencies, with this comes a greater responsibility. These medications can have a very small therapeutic dose and can thus be very dangerous when not used properly. Kurt would have his students read the product monographs of each medication they could administer. However, this wasn’t enough. In order to understand what the regular side effects were, they had to understand what they looked like on a real patient.

> You know, when you give adenosine and on the product monograph a symptom is an impending sense of doom, they literally write that in the monograph, and until you see that look in the patient’s face, you don’t understand what it is, what does that mean.

Kurt wanted his students to really understand what each medication’s regular side effects were and what they looked like, in order for them to be able to better recognize if the medication was not working or if they had given a toxic dose. During the interview, Kurt stated, “Everything you give

can kill them as well as save them. The margin for error at an ACP level compared to a PCP level is exponentially great."

Kurt described one specific experience he had with his students. While on a 911 call for an individual, the students did not recognize what was going on with the patient. Kurt had looked around the room and noticed that, based on the patient's prescription for their antidepressants, there were many pills missing. At this point, Kurt told his students to get the patient into the ambulance within the next three minutes. In the meantime, Kurt prepared his intubation kit. Shortly after, Kurt had to intubate the patient. The students were very surprised and questioned how Kurt knew that would happen. He explained to his students that the way the patient was presenting was typical of an antidepressant overdose. After counting the left-over pills in the prescription bottle, Kurt was able to confirm that it was an overdose. Although antidepressants are not a medication that paramedics can administer, Kurt goes back to how important pharmacology is and how recognizing the patient's presentation, the real physical look of a human that has overdosed on antidepressants, is something that will stick with you, which will allow you to recognize it better the next time you see it.

Kurt explained that as an advanced care paramedic preceptor, two students are placed with one preceptor, making them a team of three. One of Kurt's advanced care paramedic students was really struggling. He decided that he was going to allow the one student to attend all of the calls and the student that was struggling was going to start from the beginning as if he were a primary care paramedic student. "I had to basically strip him right down to nothing, almost a student coming out as a PCP, and bring him back up again. He had the knowledge, but he couldn't put it together." He had this student first observe and verbally describe what he would do in that specific situation. Slowly, they would progress to allow the student to perform during lower acuity calls

and work their way up. Once the student gained some confidence, he was able to better perform and use his knowledge rather than freezing up on the spot. Kurt preferred to use this kind of structure within his precepting in order to allow students the time to build their way up and gain more confidence in the skills they needed to perform. Kurt explained that this opened his mind to utilizing different teaching strategies when dealing with adult students. He was aware that all individuals have different learning needs, but this student allowed him to test his own ability to become more flexible with his teaching strategies.

Overall, as a preceptor, Kurt would always go back to the basics. He strongly believed that in order to be a good paramedic, his students must have a strong foundation and understanding of the basics.

> When I used to teach trauma life support, whether it was BTLS or ATLS, we developed this thing called the ART of trauma care, assess, re-asses, treat. It doesn't change. That's all you do. It's constant ART, assess, reassess, treat, now you've treated, asses, re-asses, treat again, or not, just keep monitoring, assess, re-asses, and it never changes.

Kurt used this tactic often and tried to instill this into his students.

Kurt discussed some of the key aspects he believes are important to have as a preceptor. He believes a preceptor should have experience, the will to teach, compensation, and structure.

> In a perfect world, preceptors should be the most experienced and your best clinicians who have a desire to want to share what they've learned. Because you can teach most people how to teach, but you can't teach that life experience and what they've learned. That's the wisdom.

He expressed his thoughts on experience being one of the main contributing factors to a good preceptor. As well as ensuring the preceptor has the will to teach, to make sure that they stay committed to their student. He thinks preceptors should be compensated financially beyond their normal wage.

> I go back to how I started, oh, somebody else to carry the bags and somebody else to lift this end of the stretcher rather than I do my job per se. That's what It was when I started, and where we are now is light years beyond that, of course, but I still think there's a lot of room for improvement to have a more formal structured program… Compensating them not just a buck an hour because it needs to be more than a buck an hour, that's almost the different between a PCP and an ACP, it's not that big of a difference. But it needs to be recognition for the value you bring to the professional in the organization that you're working in.

Kurt described how the job of a preceptor can be difficult and time-consuming, and that financial reward would allow preceptors to continue to put in the work to better their students. Finally, Kurt believes preceptors should have a structured program in order to teach them how to precept. He described how this should be more than just a three-day course, but rather something that is continuous and required at least annually. With this would come the ability of the preceptor to arrange their precepting techniques with more structure for the student. With that, Kurt thinks it would be beneficial to run a residency for newly hired paramedics. In his view, this would function similarly to a preceptorship, except that the paramedic would be employed and would continue this residency for one year. He had two main reasons for this thinking, firstly, to ensure the paramedic got enough exposure to the different varieties that might arise on a call, and secondly,

to mold each individual paramedic working within that same service the same way. Kurt described how individual service culture was very important to him and how he believed that doing a residency would reinforce the student preceptorship as well as develop an appropriate service culture.

### *Conclusion*

In conclusion, Kurt focused his discussions on how he has attempted to improve himself, paramedic preceptorship, and paramedic service culture within his different positions and roles throughout his career. On a personal level and throughout his career, Kurt strongly valued self-improvement and had committed himself to taking either an educational clinical course or a personal development course in leadership or management at least once a year. This has allowed Kurt to continuously improve, giving him the knowledge and power to excel in his career.

As a preceptor, Kurt treated his students the way he wanted to be treated and strove to teach them everything he had learned. He wanted to make preceptorship a more structured environment for his students, including teaching them how to be good paramedics rather than just how to survive the job. This was something that he felt he missed out on during his preceptorship as a student. He made it a regular practise at the end of every shift to write down everything they did that day, as well as one thing they had to learn before coming in for their next shift. He stated, “I wanted to make sure they were challenged and at the top of their game the next time they showed up.” Kurt was very passionate about his job as a paramedic and as a preceptor, and he wanted to be able to instill that same passion in his students. He wanted to ensure that these students became the best paramedics they could be.

More broadly, Kurt was interested in expanding the structural integrity of the paramedic service he worked for and represented. He tried to improve preceptorship for students at a management level position, by creating a coordinator position between the service and the college,

in order to pair preceptors and students better. He also implemented preceptor training courses to create more confidence in the preceptors' teaching. More importantly, Kurt believed in making people feel welcomed, creating a family environment at work, allowing preceptors and students to feel comfortable and thrive, while creating a positive culture within the paramedic service.

**Carter's Narrative**

Carter was the only participant that was a critical care paramedic, the highest level. He has been working in the field for about 20 years. In addition, he has a background working in the military prior to becoming a paramedic. Carter completed his primary care paramedic preceptorship in a large urban city in Ontario, where he worked for eight years between 2000 and 2008. He completed his advanced care paramedic preceptorship 50% on land with the same paramedic service and 50% with an Ontario air ambulance service. From there, he joined an air ambulance paramedic service in Ontario in 2006, completing his third paramedic preceptorship to become a critical care paramedic. Carter continued to work there for about 12 years. He is now working for a rural paramedic service in Ontario. During that time, Carter completed a certificate in adult education and became an educator for a large air ambulance company, running their advanced care paramedic and critical care paramedic programs for eight years. This service trains their internal paramedic employees to become critical care paramedics in house. The program mimics one that would be given at a college, ranging between 12-18 months in length. He delivered topic reviews and taught certain subjects in more depth, like anatomy and physiology, chemistry, pharmacology, biology, airway management, the respiratory system, cardiology, and so on. While doing so, he developed a preceptorship training program to deliver to the paramedic service he currently works for.

### *Primary Care Paramedic Student*

Carter began the interview by trying to distinguish his memories from his student preceptorship into three parts: the ones he had as a primary care paramedic student, an advanced care paramedic student, and finally as a critical care paramedic student. He stated that his primary care paramedic preceptorship was "probably one of the greater experiences of my life." He described how he felt on his first day of preceptorship.

> It was terrifying walking in, obviously, as you may know or remember. Just walking in there your first shift in school thinking you know everything, then now dealing with real people and realizing you know nothing. And running into different people, different medics who some will let you learn on your own pace, others expect you to know more than what you were taught, and others treat you like babies and will hand hold you all the way through.

The openness of Carter's preceptors allowed him to feel comfortable with them and gave him the opportunity to flourish.

Carter described how preceptorship was fairly well established at that point in time. However, his preceptorship began at the same time that multiple services amalgamated. This attempt to amalgamate the services caused chaos and confusion due to the change in certification bodies. He described this experience as being "all over the map" in terms of the things they were and were not allowed to do. The students had begun their first 60-80 hours of preceptorship in the fall semester and finished the full 450-480 hours in the winter semester. On January 1st, in the middle of their preceptorship, the services amalgamated, which changed the dynamics of their preceptorship. He stated, "January 1st everyone fell under one emergency medical service umbrella

and again it was a free for all. There wasn't very much structure." For example, the coordination needed between the police and the paramedics when there was an active shooter involved. They had received a call with a potential active shooter on the scene. When they had arrived, they got out of the ambulance in order to go see what had gone on. Shortly after, they realized there were no police on scene. There was minimal direction to help assist them in this instance. Carter and his preceptors had gotten back in the ambulance and drove around the corner to wait for the police to show up in order to secure the scene and locate the shooter. This had been only one example of many where Carter described feeling like his primary care paramedic preceptorship was "hectic." Eventually, these difficulties were ironed out.

In spite of the initial uncertainties, Carter moved on to discuss how his preceptors were good at providing feedback in a way that suited his needs. He felt it was important that his preceptors create an environment where he felt safe to fail. In the end, he expressed that they provided him with the right amount of encouragement and support while also pushing him to his limits.

> The preceptors, they were great guys, obviously, but they pushed me into uncomfortable positions. They always had my back if I flustered or messed up, you know, the hamster wheel spinning and just like buffering, not really moving forward on anything. They would tap me, whisper, or take over politely. I never felt rejected or stupid, or undignified by any of my errors, which I did make lots of errors… The preceptors were very patient with me, they were sort of father figures.

Carter expressed one of his experiences where his preceptors pushed him outside his comfort zone. He recounted how he had messed up his first death notification, describing himself as "a deer in

headlights," telling an older couple that their adult son had died. Carter had never heard or been taught how to properly tell a family member that their family member had died. In this instance, his preceptors debriefed the call and told him that he should have given the notification differently, but they wanted to allow him the opportunity to try. This experience allowed him to see how important and valuable mistakes are when it comes to learning.

> We all, as medics, make mistakes. We need to learn from our mistakes, improve upon them, and again, the ethical and moral thing is to become comfortable admitting I need more training on this because seeing one YouTube video for five minutes is not making an expert in the field when I'm doing it three years later.

Overall, Carter conveyed that he was honoured to have gotten the experience he did. He discussed how some of his friends going through preceptorship were not pushed enough, and they weren't given that opportunity to become the best of their abilities, like he was. Carter reiterated how lucky he felt to have received the preceptorship that he did, and attributed some of his success to the great foundation that was created by himself and his preceptors.

### *Advanced Care Paramedic Student*

Carter completed an advanced care paramedic bridge course, which meant 50% of his preceptorship was completed on land, and the other 50% was completed with an air ambulance paramedic service. He explained how he had two crews of preceptors during his land portion of his preceptorship due to some shift exchanges that his preceptors had done. He stated that again, he had a very positive experience, and that he was very happy with the outcome of his preceptorship. As part of being an advanced care paramedic student, the service allowed them to

roam around and jump on any calls that they desired in order to get as much experience as they could.

> We were the cream of the crop. We were the top dogs. We were hot shit all around, and we would sit on a street corner all night long just because any call in the area, we would run and burn to it. It was not forced upon us, but certainly we wanted to have that experience and dispatch and Ottawa management allowed those cars to be preceptorship cars, so they weren't counted in the regular car. We never did a code 3, I never did a transfer.

A code 3 is described by the Ministry of Health in Ontario as requiring a "prompt" response, where the ambulance drives to the call without any lights or sirens. A code 4 is described as requiring an "urgent" response, where the ambulance drives with lights and sirens (Ministry of Health, 2021). It typically indicates a more serious acute medical emergency. These are decided based on the call information the dispatcher receives. Carter described this experience as very beneficial. They were able to practice the new skills they learned in school and excel in their new position. Carter shared that his preceptors forced him into difficult situations but ensured that they supported him along the way. This allowed him to feel safe in his environment and pushed him to his limits in order to gain educational experience, similar to how he felt during his primary care paramedic preceptorship. Overall, he stated that again, he had a very positive experience, and that he was very happy with the outcome of his preceptorship.

### *Critical Care Paramedic Student*

Carter described his critical care paramedic preceptorship as "a different ball game" and compared it to a residency rather than a preceptorship. He explained how the culture at this level

of paramedicine was different. Many individuals saw themselves as superior to others due to their title. He stated, “There’s a bit of an attitude and it’s the whole cultural thing at the CCP level. You’ve made it this far, you’re a CCP.” He also described how, at this level, the students’ preceptors had a title to maintain and that their sole purpose was to ensure the students were successful. They had a personal vested interest in the student since they were already employees. The service has invested time and money into training these paramedics at the critical care level in-house and thus want them to succeed. He found in his experience that the preceptors were very selective in which students they took on due to their desire to keep a positive preceptor title and have a successful student.

Carter spoke about how much of what he learned in his primary care paramedic schooling was not useful or practical at that level. Much of it has been forgotten due to the information not being used or practised. However, when he began his critical care paramedic training, these same things circled back, but in more detail. Now Carter found himself needing this information that they had not needed while on the road. This allowed him to realize and appreciate the importance of a strong primary care paramedic foundation prior to moving on to higher levels of care.

***Preceptor***

Carter first became a preceptor about a year and a half after starting his paramedic career. He recalled being confused the first time he met his student because he was not given much information on how he was supposed to proceed. He stated, “I had to use my own experience of what I wanted to be as a good preceptor. What I thought was a preceptor based on my own experiences and I approached it that way.” Carter described his first student as someone that was more interested in being identified as a paramedic, having the professional title, rather than the specific role that paramedics play within emergency medicine and helping people in the field. This individual was described as a weaker student and Matt struggled in trying to help her. Matt

explained how he had attempted to deliver the information in different ways, to provide more hands-on work, and to give her some take-home assignments. Even with the added efforts, this student was at risk of not graduating. Carter found out his student had financial problems and realized the implications of failing this student: having to pay tuition again to redo the year, being out of the workforce, and not having an income. He decided to bend the rules so she would not have to repeat the year. Carter had spoken to this student's instructor at the college, and they agreed that the student would be signed off in order to allow her to graduate on time, on the condition that she return for a couple more shifts after she graduated. He felt that, after learning about her financial situation and personal background, this would be the right thing to do. Carter detailed that after he had signed her off, he never heard from her again, and he felt betrayed. He had trusted that he was doing the right thing but got betrayed in the process.

> It's one of those life lessons that I've always stuck to. It's like, I'm so sorry but these are the rules in which we play this game and now we have to follow them to a tee no matter how unfortunate your certain situation is. I guess this reflectively relates to everything else we're supposed to do. We have a moral or ethical code, and it shouldn't necessarily bend or break just because your situation is this.

Since then, Carter has become strict on his moral and ethical code and advocates that to this day, it has been one of the most important measures of a good preceptor to him.

Carter views the role of a preceptor as a responsibility he must fulfill. He sated, "It's our duty, our honour to be a preceptor and train the next generation or anyone else below us." He views this as a volunteer position. By this, he meant that in order to be a preceptor, it requires time and

effort outside of regular work hours. There is continuous education and training that should be done in order to stay on top of things.

> Preceptor to me is a volunteer issue. It doesn't just mean that it's at work. I might have to study up on a few things. If I know that you're struggling with cranial nerves, labour or delivery, I should study up and, you know, help you, quiz you, drill you on that stuff so we both know. It's always beneficial for me. Big fan of lifelong learning… I don't know that I'd be where I am now if I didn't believe or continue with the lifelong learning thing.

When it comes to being a preceptor, Carter believes that there are different teaching styles, just like there are different learning styles.

> There shouldn't be one standard for preceptors because there isn't one standard for the students, and a good match for the preceptor and the student is very important.

He discussed how he believed it would be beneficial to match teaching and learning styles together, although he recognized how difficult this task might be. Carter explained how paramedicine is not black and white, it is in fact very grey. Every situation is different, meaning there are not enough guidelines or standards to cover all the bases. This is where adaptability comes in. Carter takes the approach of being a preceptor by meeting the student and allowing them to show him their abilities. He then adapts to give the students what they need and figures out what type of teaching style would match best with their learning style and moves forward from there. Carter views a preceptor as very similar to a parent. He described how the preceptor gets to know the student very well, to a point where they are able to tell when the student understands something, what the student needs

from them, when they are having problems, or when they are lying to you. Carter believes that being a good preceptor means taking that information and figuring out the best way to step in and find a resolution to the problem or praise the success of their student.

Carter later discussed the lack of communication between the educational bodies and the preceptors and the implications this had. The information that he was given for each of his students was very limited and vague. More recently, he has found that even on the technological side of things, preceptors are given little instructions on the applications they must use to fill out forms and keep attendance. Carter found the role of being a preceptor has historically been lacking formality.

> We've been very lucky that the people we've been able to use as preceptors have done the job to make us as medics who we are… The formality of the preceptor's role has never been there and literally we used to get paid back in the day like a two dollar an hour stipend they stopped that and then you were struggling to find somebody to take a student on and then sometimes the people who would raise their hand as a preceptor you were like, that guy is going to teach you? Oh my god, you don't want that guy to teach you.

As a preceptor, Carter feels as though it is important to create a sense of formality in order to gather and maintain credible preceptors. Carter brought forward his concerns with this informality he experienced during his land preceptorships, both as a primary care paramedic student and advanced care paramedic student. In comparison to his air ambulance experience, he found there to be more formal training, which he believes is due to their level of education and training. In order to become a primary care or advanced care paramedic preceptor, Carter explained that there

were very few, if any, requirements. When becoming a critical care paramedic preceptor, the service brought in physicians that specialized in different fields in order to train the preceptors both on their medical knowledge and skills, as well as how to manage that while teaching a student. This was the type of formal training and education Carter expected to get when becoming a primary care and advanced care preceptor.

Both as a preceptor and an educator, Carter feels that the primary care paramedic is a very important foundation that all paramedics should have mastered prior to moving on to higher levels of paramedicine. He specifically stated, "If you don't have a good BLS (Basic Life Savings Patient Care Standards, referring to a primary care paramedic) foundation, you're making a very scary skyscraper moving up." Carter demonstrated that, as a preceptor and an educator, he begins by running his students through basic knowledge and slowly progresses from there, ensuring that their foundation is secured prior to moving on.

Later during the interview, Carter described how within his experience working as an air ambulance paramedic preceptor, there was no specific pairing of students to preceptors. However, they were cognizant of who they were paired with. He felt strongly that there should be no prior personal relationship between the student and the preceptor because it could cause a conflict of interest. He referred to being able to better recognize and correct a student's mistakes and bad behaviour if the two individuals did not already have any kind of relationship together.

> My personal belief is that you shouldn't be precepted by somebody you have a personal relationship with because that's going to cloud the judgment.

Overall, Carter depicted how there wasn't very much student preceptor pairing, but that it did not matter as long as there was no conflict of interest and no prior relationship between the two individuals.

Carter constructed a formalized training program for both primary care and advanced care paramedic preceptors. This course was implemented in the rural paramedic service that he is currently working for. He found the more experienced preceptors were frustrated that they were now forced to take this course, specifically stating that they "rolled their eyes." He focused this course on reviewing basic concepts, preceptor strategies and learning styles, anger management and patience, application and reflection, and the preceptors' legal and ethical responsibilities. He had gone to the surrounding colleges and gathered information about their expectations and relayed that information to the preceptors about what they should expect of their students. He reviewed the process of how to deal with student related problems and gave them a list of contacts in order for them to know who to be able to call given the circumstances. Carter emphasized in his preceptor training course that it was important for preceptors to show their students basic things like where the restrooms were and where they could sit or eat their lunch. Carter recalled how his preceptors had created a scavenger hunt for him. Over their block of night shifts, he was given a list of non-medical things or places to find. For example, he was tasked to find four great late-night meetings spots or find the best coffee shop that was open 24/7. He really enjoyed this experience and used the same technique in his preceptor training program that he developed. Carter expressed that everyone who has walked out of the room after receiving his training program has learned at least one new thing. At the middle and end of the preceptorship, the students all filled out preceptor evaluation forms, which allowed them to view the benefits and outcomes of the newly

implemented preceptor training program. Overall, Carter found that there was a lot of success with this preceptor training course, mainly in terms of both the student and preceptor's satisfaction.

### *Conclusion*

Carter had a lot to say regarding preceptorship and expressed this with his opinions, values, and beliefs alongside his specific experiences. In all three of his preceptorships and as a preceptor, he had very positive experiences. Carter expressed that there were many things that he would like to change about paramedic preceptorship. He would first like to see more of a formal process, including a form of evaluation prior to becoming a preceptor. He believes this would help weed out the preceptors that take on students for the wrong reasons. He expressed how he values personal experiences just as much as academic knowledge, and he hopes to see it become a larger requirement when becoming a preceptor. Carter discussed the lack of communication between the colleges and the preceptors and hopes to be able to close this gap in the near future. He expressed his concerns with the requirement of a governing body as well as a formal group where preceptors can connect, and be able to ask each other for advice and support when required. Finally, Carter thinks that a more consistent training program would be beneficial in order to keep up to date on both medical and educational knowledge. He has moved through his career with a vested interest in education and preceptorship. He has worked hard to try and continuously improve preceptorship based on his experiences within the field and using evidence-based research.

## Summary

Overall, the participants come from a wide range of backgrounds, including all three levels of paramedics, primary care paramedic, advanced care paramedic, and critical care paramedic. They've also covered a diverse level of experience, ranging from five years to thirty-five years and into retirement. They've experienced both strong positive preceptorship experiences and

negative ones. They have shared their educational journey, their highlights and struggles with being a preceptor, and their beliefs and values in ways they think paramedic student preceptorship could be improved. They have taken their own experiences and have come to conclusions based on the things they have seen. Both the commonalities and the differences have been considered. From this information, the most prominent themes within all six of the participant interviews were identified and discussed in the next chapter.

## Chapter 6 – Results

In conjunction with the narratives, direct quotes were taken from the original transcripts to create a visual representation of some of the supporting evidence for each individual theme and to demonstrate its importance to each participant. While some of the quotes may seem repetitive, they serve to bring the reader closer to the data, so they can judge the quality of the inferences and contribute to the trustworthiness of the interpretation of data. In this chapter, I will discuss the themes that were identified throughout the six participant narrative interviews. By working with the narratives that were created based on the set of experiences the participants shared and their views on those experiences in relation to the research question, four themes stood out. This process included multiple readings of the data, discussions and feedback from my supervisor, and cross-referencing the six narratives, which identified evidence of the themes within multiple participants' experiences. The themes include the role of education for preceptors, the importance of relationships, the need for effective communication across institutional bodies, and preceptor compensation.

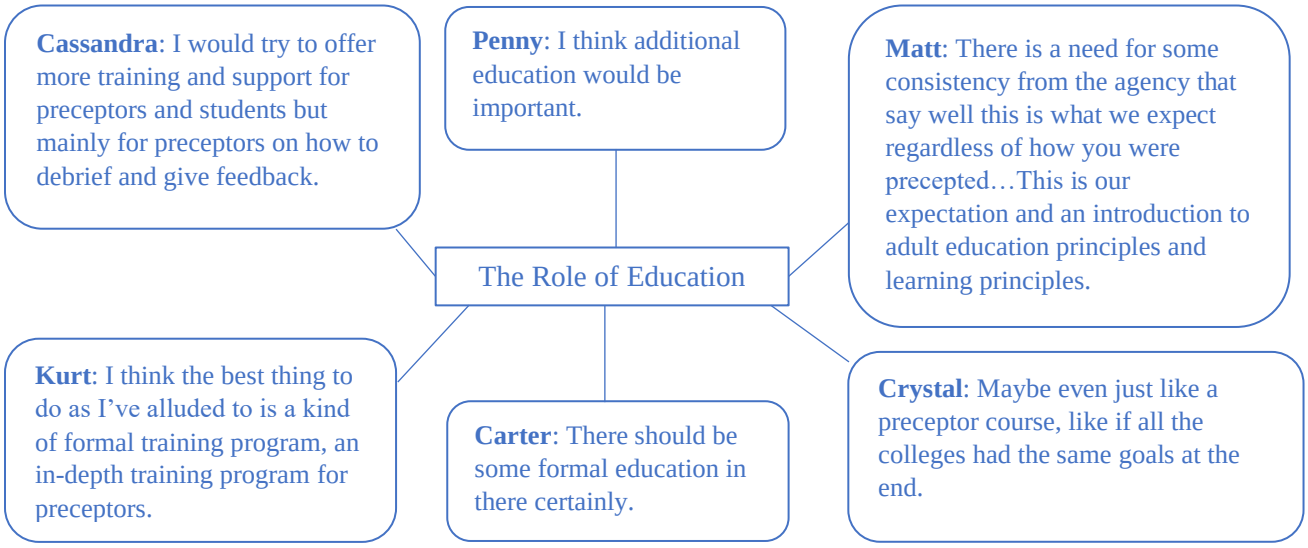
### The Role of Education

The first theme that I would like to address is the role education plays within paramedic preceptorship. There were many similar takes, as well as very different perspectives. The

participants all expressed their opinions on the role of education for preceptors. There is some overlap as well as clear differences in how they view the relationship between education and becoming a paramedic preceptor.

**Figure 1**

*The Role of Education*




### *The Need for Additional Education for Preceptors*

Penny, Crystal, Kurt, Cassandra, and Carter all took a similar stance, suggesting there was a need for additional education focused on preceptor training programs. Some of the things Penny thought would be important to include were teaching strategies, assessments, decision-making, and perceptions. She found it important that preceptors be knowledgeable in soft skills like communication, and that they should be taught to act more like a guide rather than a teacher. Her view on increased preceptor education programs would include training where everyone can listen to and learn from the different perspectives of their peers. Crystal didn't provide details as to how a preceptor training program would work. However, she believed preceptors should be taught the things they were expected to impart to their students. In Kurt's opinion, having a structured

preceptor training program is necessary for two reasons: i) to create more knowledgeable preceptors and ii) to increase preceptor confidence.

Cassandra took a slightly different stance when describing the need for additional education. She took more of a mental health approach, suggesting preceptors should be taught how to become better equipped to deal with and support both their own and their students' mental health.

> I would try to offer more training and support for preceptors and students… especially as an ACP preceptor – on how to manage your own emotions and your own mental health while managing a student in what is likely to be a large volume of high-acuity calls that can lead to a higher chance of having occupational stress injuries (Cassandra's interview).

Additionally, she discussed that education on debriefing and feedback could be beneficial.

Carter dedicated himself to improving preceptorship. One of the ways he did this was by developing and implementing a preceptor training program focused on reviewing the basics of being a primary care paramedic and reinforcing the importance of a strong foundation. He described how preceptors should be taught the main learning styles, including but not limited to reflection, generalization, and application. Carter himself went to the surrounding paramedic colleges and gathered information on their objectives, student logbooks, credentials, and curriculums in order to relay that information to the preceptors and give them a better idea of the student's base knowledge and what they were expected to teach their students. He also briefly discussed the lack of knowledge given to preceptors in regard to mental health, similar to Cassandra's point of view.

> I know about personally six medics who have killed themselves in the last twenty years… I don't ever want any of my friends to do that, and I've known a few signs, and I've been able to do a lot of that background stuff and work with people in the past, so I'm aware of that stuff, but that is definitely one of those things that preceptors aren't gifted with the knowledge or those skills either (Carter's Interview).

Carter discussed the need for preceptors to recognize the signs of people struggling with their mental health in order to either provide support or find them the professional help they require. Ultimately, Carter suggested a need for further education and training along the lines of mental health.

These five participants all believed that this additional education for preceptors should be continuous. Kurt recommended it should be annually, while the other participants did not give a distinct timeline. While Cassandra also believed that the additional education for preceptors should be continuous, she suggested there be a need for a culture change within paramedicine in order for people to be more accepting and receptive of continuous annual education.

### *Modification of Current Preceptorship Practices*

Kurt, Matt, and Carter were the most concerned about formal education. They all believed that there was an important value in education and that current practices did not suffice. The three participants discussed modifying the current practises within preceptorship for the student. Kurt went as far as recommending the requirement of a residency period for paramedics.

> Basically, that's what we need to create is a residency for paramedics in the new world and the new paradigm that ER's have, that exists in an urban environment (Kurt's interview).

He viewed this residency period as a way of gaining more education and experience prior to being fully certified. This extra time also gives the student the ability to become confident in their abilities and the paramedic service they are working for. During Matt's interview, he also discussed residency. However, he referred to it as more of a relationship-building aspect rather than educational.

> If we viewed preceptorship more as a residency or an internship, these are our future colleagues; these are the people that we will be working alongside (Matt's interview).

Matt viewed implementing a residency for the paramedic students as a way for both students and preceptors to get to know one another. In turn, he believed this would also lead to preceptors treating their students with more respect, knowing they are future colleagues.

Carter discussed how his critical care paramedic training was referred to and designed as a residency, expressing that it was a strong design.

> There should be some formal education in there, certainly. I believe that there would be a huge benefit with services and colleges working together (Carter's interview).

He explained that within the critical care paramedic training program and preceptorship, there was a large amount of education given to preceptors. Their training included physicians, nurses, and other specialists going in to refresh them on important topics and give them a solid foundation to become preceptors. He suggested that the critical care paramedic preceptor training was substantial enough and that the same education and residency design could improve the primary care and advanced care paramedic preceptorship for both the student and the preceptor.

Coming at it from a different point of view, Matt, and Crystal's take on the role of education is grounded primarily in consistency and reliability. While Matt valued education, he acknowledged that formal education is not required in order to make a good preceptor.

> You can have someone that never really had any formal training in education and yet are some of the best educators I've known in terms of their approaches (Matt's interview).

Matt believes it's important to educate preceptors on adult learning principles. However, the more pressing factor for both Matt and Crystal was to create an outline for preceptors to use in order to have more consistency and reliability across preceptors within a paramedic service.

> There is a need for some consistency from the agency that say, "Well this is what we expect regardless of how you were precepted." . . . This is our expectation and an introduction to adult education principles and learning principles because many of them will have never really been through that and that's important (Matt's interview).

This can be achieved in many ways. Matt suggested a preceptor training program, as mentioned above, that would help create the consistency and reliability that he is looking for. Crystal implied that even just getting information packages from the college the student is coming from and the paramedic service would be sufficient in giving them the information they need to successfully complete their job as a preceptor.

While the specific role education played within paramedic preceptorship varied, it was clear they all valued increased education for the preceptor. Some suggested a one-time preceptor course, while the majority agreed that continual education would be more beneficial. The topics ranged from more training on debrief and feedback, more formalized structured programs in order

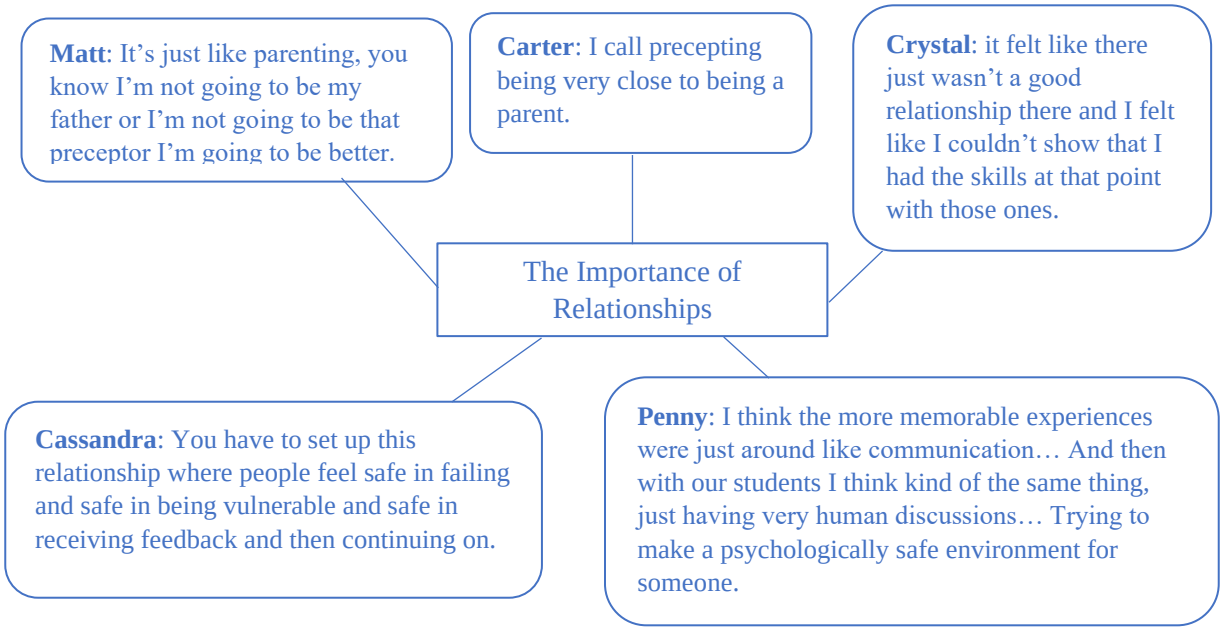
to create consistency and reliability, and even more education on mental health and well-being. Overall, the participants consistently viewed education as an important aspect of the preceptor.

## The Importance of Interpersonal Relationships

All six participants put a large emphasis on the importance of creating and maintaining strong relationships between preceptor and student. Interpersonal relationships are an important part of everyday life. During the participant interviews, the focus was put on using relationships to create environments where the student felt safe to fail and to create positive experiences; the different opinions on interpersonal relationships between the student and preceptor; and the preceptor as a role model.

**Figure 2**

*The Importance of Interpersonal Relationships*




### *The Use of Relationships in Creating Safe Environments*

Cassandra and Penny both stressed the importance of using relationships to create an environment in which students feel safe to fail in. Penny discussed her own experience as a student and expressed gratitude for the psychologically safe environment that her preceptors provided for

her. She attributes this as a part of the reason she was successful as a paramedic student. She has carried that value over as a preceptor, and discussed multiple times during the interview how important creating a psychologically safe environment was for the student's success.

> This is a safe environment for anyone, like whoever you are and however you identify, and we just want to make it a safe environment for people to learn in (Penny's Interview).

Similarly, Cassandra emphasized the importance of environments where students can feel safe in failure and vulnerability. She believes in pushing her students and values creating that initial relationship that provides the student with a feeling of safety and comfort.

> You have to like, set up this relationship where people feel safe in failing, safe in being vulnerable, and safe in receiving feedback, and then continuing on (Cassandra's Interview).

She discussed how her preceptors created a perfect environment where she felt both supported and pushed by her preceptors, which led her to value this type of relationship and try to replicate it with her own students. Cassandra was also concerned with relationships in terms of creating a positive environment for her students. She spoke highly of the importance of taking the time to build a proper relationship with the student, expressing that the student's experience and success depends on a positive environment. She revealed that this task is not always easy and can come with consequences if done improperly.

> If you don't set up that relationship properly, you might come up against a lot of personality conflicts (Cassandra's Interview).

Cassandra brought another view of relationships into the conversation, speaking about her experience with one of her partners. She described what she labelled as a toxic relationship between her and her partner, which in turn ended up creating a negative environment for her student. She felt strongly that a good work partner relationship is important for the student, and reflected directly on the creation and maintenance of good relationships between the preceptor and student. She described the possible impacts other individuals have on the students and the way it can either hinder or facilitate the student's ability to flourish and succeed.

The importance of relationships for Crystal was similar to Cassandra's point of view but was brought to light from a negative experience rather than a positive one. She expressed that creating an environment where both the preceptor and student are comfortable and well respected allows for more positive experiences. She spoke about the importance of relationships, narrating how, in her experience, there was a negative relationship between herself and her first set of preceptors. She attributes this negative relationship as part of the reason for her inability to thrive. Crystal felt as though she was unable to demonstrate her skills within the environment that she was in due to the poor relationship she shared with her preceptors.

> It seemed like they were best friends, and they were in this clique, and I was this third wheel, was how it was with them (Crystal's Interview).

She took the lessons she learned during her negative experience and made surer to provide a safe, comfortable environment for her students where no one felt left out, and they had the ability to prove their skills and learn throughout the process.

Kurt spoke minimally about his view on relationships throughout the interview, but he did bring forth the dependence that students have on their preceptors. He discussed how the relationship between the preceptor and the student requires the student to have complete blind faith

in them to provide what they need in order to succeed. They must trust that the preceptor knows what they are doing in terms of the job as a paramedic as well as educating them as a student. This discussion reflected Kurt's view on the importance of creating a positive relationship between the preceptor and student in order to give the student a reason to believe they are receiving the proper education and experience.

### *The Different Views on Interpersonal Relationships Within Preceptorship*

Penny and Cassandra view interpersonal relationships within paramedic preceptorship as positive. They both individually spoke about the importance of creating a long-lasting friendship with their students for them to be able to act as mentors even after the student preceptorship was done.

> I felt like they were more than just preceptors to me because it kind of developed into a friendship afterwards (Penny's Interview).

They were both given this opportunity during their own student preceptorship, becoming good friends with their preceptors. This practise was carried with them and is implemented within their own practises as preceptors today. Cassandra and Penny were grateful to be able to have someone they could look up to and create that long-lasting friendship and mentorship.

Both Matt and Carter have the same view on interpersonal relationships within paramedic preceptorship and both expressed that there is a line that should not be crossed. They believe the preceptor and the student should not have had a previous relationship prior to becoming the student's preceptor. This includes any friends or family, as it could create a conflict of interest.

> In this case, I knew him previously, which was another mistake. Don't take on a friend as a student (Matt's interview).

More specifically, Carter discussed how this could create imbalances. One of them includes the preceptor's decision to pass the student through solely based on their previous history together and their potential inability to be stern with the student when they do something wrong in fear of upsetting their friend or family member. While the relationship is important between the preceptor and the student, they expressed that there are boundaries that shouldn't be crossed, that being one of them.

> It's my personal belief that you shouldn't be precepted by somebody you have a personal relationship with because that's going to cloud the judgment. (Carter's interview).

While Matt views taking on friends and/or family as students as a conflict of interest, he did express how this became difficult when taking on advanced care paramedic students. Most advanced care paramedic students complete their student preceptorship at the paramedic service that they currently work at. This means that they are likely to know about or even be friends with the preceptor they are paired with. Matt brought forward how different the dynamic was between taking on primary care and advanced care paramedic students. This was primarily due to the fact that most of the advanced care paramedic students have previously worked as primary care paramedics and have a general foundation as a paramedic, compared to primary care paramedics.

> You may already have that relationship established. It's not the sense of, you know what their base level of knowledge is and their experiences are, and now you're just taking it further, which makes it easier (Matt's Interview).

While both Carter and Matt believed preceptors and students should not have a pre-existing relationship, they both believed it was important to develop the relationship during the preceptorship. They referred to it as one like that of a parent and child.

> I call precepting being very close to being a parent, you get to know when people start bullshitting you or fibbing a little, or you know, you can tell when things click (Carter's interview).

Carter's view reflected how the preceptor and the student should create a close enough bond for the preceptor to be able to learn and read the students' mannerisms to the point where they understand what they are thinking. Matt viewed it more in terms of the relationship that was created and how the student would take that experience and either model it or modify it. He explained that there were multiple outcomes based on the student's experience. If the student had a positive experience and relationship with their preceptor, they would normally want to emulate that for their own students someday. If a student had a negative experience with their preceptor, they would want to either provide their future students with everything they did not receive from their preceptor or mimic their preceptor and view it as giving their student what they were given, regardless of whether it was ethical or not. He referenced this to the same way a child would take their experience with their parents and want to either model or modify their parents' behaviours based on how they were raised.

### *The Preceptor as a Role Model*

All six participants conveyed that they were given a positive experience during their own student preceptorship and expressed how they felt it was their duty to pass that forward to future students. Penny, Matt, Cassandra, Carter, and Kurt discussed how their preceptors were strong role models for them while they were students, and they wanted to be the same role model for their

students now that they were preceptors. During Penny's interview, she discussed how she was given a great preceptorship as a student, and she felt it was her duty as a paramedic now to train the future generations of paramedics. This mentality of mimicking her role models as a student and now herself acting as a role model for her own students is pushed forward by her expectations of her students.

> We want them to have a good experience, and to feel safe and comfortable in this environment. That she has support, and moving forward she can always come to us, so if there are more paramedics like that out there then that's just what we want, for her to pay that forward to someone else (Penny's Interview).

Similarly to Penny, Matt expressed his gratitude for the experience he received and expressed his feeling of needing to repay what he was given.

> I was very fortunate, I had fantastic preceptors, so I do my best to pay that forward and to emulate what they instilled in me (Matt's interview).

Matt had expressed the notion of student paramedics looking up to paramedics as role models and was hyperaware of the fact that as a preceptor he needed to be cognizant of how he acts in order to convey professionalism. Matt looked up to his preceptors when he was a student and tried to provide a good example of what a paramedic is and should be.

Cassandra also showed her appreciation for the role her preceptors played in her journey to becoming a paramedic, and expressed a need and a want to continue this in the education of future generations of paramedics.

> I felt like I wanted to model his style of preceptorship (Cassandra's interview).

For Carter, part of being a paramedic is educating paramedic students. He highly values and honours his job as a paramedic as well as his job as a preceptor. He views that being a preceptor is a constant effort that requires work both while at work and at home to continuously better yourself.

> Preceptor to me is a volunteer issue. It doesn't just mean that it's at work (Carter's interview).

Carter has had many role models in his life and throughout his educational journey to becoming a critical care paramedic. He strongly believes that he must convey that role model and the professionalism that he has learned throughout this process to his paramedic students.

Kurt was the only participant that worked within a paramedic service at the management level. He discussed the importance of paramedic preceptorship in terms of the preceptor modelling the student into a better paramedic so that when they graduate, they are ready to practise on their own and meet a certain standard. While Kurt was a student, he looked up to his preceptors and was appreciative of the experience he was given and wanted to carry that forward to future students.

> I just wanted to treat them the way I wanted to be treated, and I wanted to impart on them everything I had learned. (Kurt's interview).

Later, within the management position, Kurt tried to implement different factors within the paramedic preceptorship programs in order to give these students what they required. He focused much of his attention on the preceptors themselves in order to ensure they were acting as proper role models for their students.

All six of the participants discussed how their specific experiences led them to either want to emulate what they were given or change for the better in the best interest of their students. The preceptor is a major role model in the paramedic student's life, which is why they have such a large impact on their experience during preceptorship. The participants reflected that as paramedic students they remembered looking up to their preceptor as a role model. They conveyed that as current preceptors, they take on that role proudly and take it very seriously.

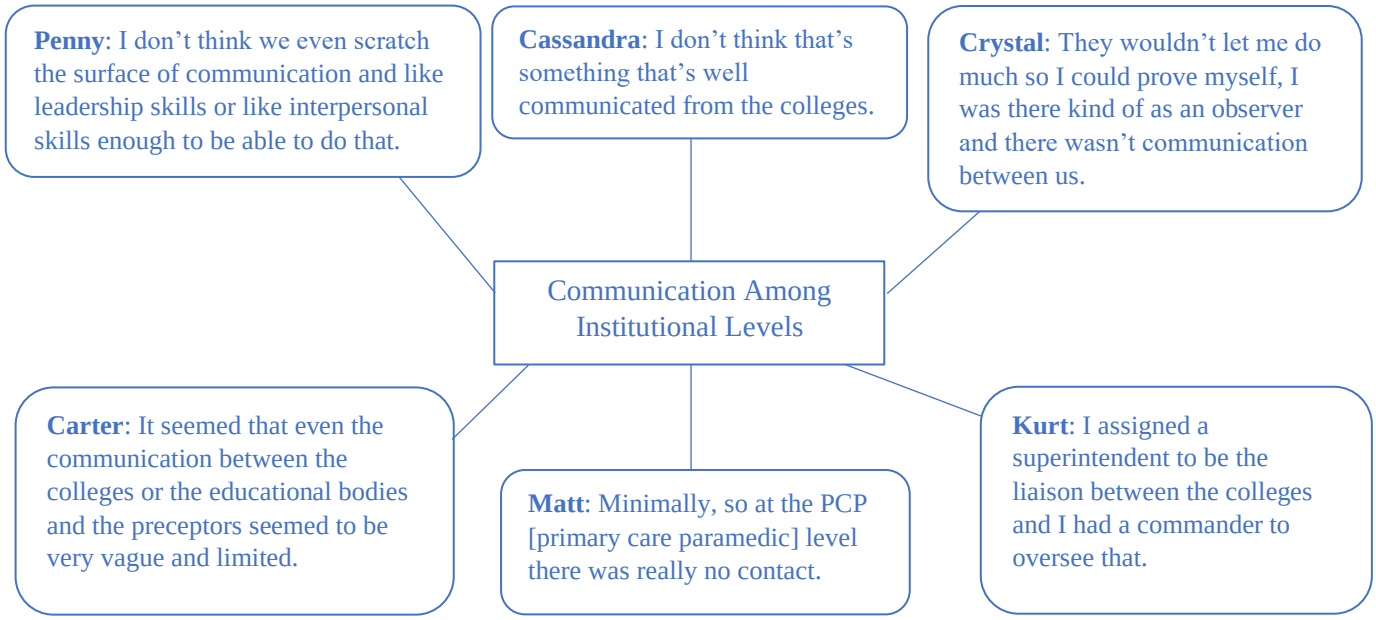
In conclusion, the participants elaborated on the idea that, as a preceptor, creating a positive relationship with their students allowed for better communication and created a safe learning environment for them. Once this strong relationship has been developed, it becomes important for the preceptor to maintain a good interpersonal relationship with their students and future colleagues after their student has graduated. This allowed them to act as a mentor for them once they started their career as a paramedic. While the views on relationships varied, the same conclusions came from all six participants. Creating a strong relationship between the preceptor and the student provided the student with a better opportunity for success.

**The Need for Enhanced Communication Among Institutional Levels**

Communication is important in many aspects of life, including within relationships. However, in this instance, all six participants discussed communication with regard to the different institutional levels rather than interpersonal communication. More specifically, the participants spoke about the lack of communication across two different domains: between the paramedic service and educational bodies; and between the paramedic service and the preceptor.

**Figure 3**

*Communication Among Institutional Levels*




### *Communication Between Paramedic Services and Educational Bodies*

All six participants discussed different aspects of the involvement between paramedic services and educational bodies. They all concluded that there was either very minimal or no communication at all between the two. Both the type and the amount of information communicated between them varied among each participant. Cassandra, Carter, Penny, Crystal, and Matt all communicated that there was very minimal communication between the paramedic service they worked for and the educational bodies that their students were coming from.

Cassandra articulated that the college that her student came from sent out an information package to the preceptor. There was no open line of communication between the two, meaning there was no opportunity for Cassandra to be able to ask questions or confirm the information. While Cassandra felt the educational bodies should communicate more with the paramedic services, she specifically felt strongly about them communicating with both the preceptor and the student about the mental health services that are available to them. This would include the coverage

that is provided to them under the college insurance policy and where they stand in terms of access to different services directly from the paramedic service they are completing their preceptorship at.

Carter has the highest level of education as a paramedic, working as a critical care paramedic. He reflected that in all his experiences, including all three of his paramedic preceptorships, there was very minimal communication between the paramedic service and the educational body that the student came from. Carter's stance reflected a lack of communication between the two. He referenced this in terms of preceptors not being aware of the education the students received, their expectations, and unclear graduation requirements.

> Without having a formal process there, whether on the college side or the service side, that preceptor could be drowning, wanting to help this student but not knowing where to ask or who to ask (Carter's Interview).

With his wide variety of experiences, Carter strongly recommended the requirement of a broader communication scheme that involved the paramedic service and the educational bodies.

As the newest preceptor out of the six participants, Penny also found there to be a lack of communication and guidance from the educational bodies that the students come from. She expressed that there was a very vague form of communication, including a PowerPoint presentation, but no open lines of communication.

> There was really no information about, like, this is where the student should be at this time and we didn't really have anything to compare besides, like, thinking about our own experience, which is really hard to reflect on without being very biased about how it went (Penny's interview).

Crystal did not receive any training or communication from the college where her students were coming from. She is unaware if there was any discussion between the educational body and the paramedic service. If there was, she was not relayed any of that information. Crystal did not comment on her opinion on this matter.

Matt briefly discussed how there was very minimal contact with the educational bodies as a primary care paramedic preceptor. He did not make any comment on if this was different as an advanced care paramedic preceptor. This conversation led to the discussion of how preceptors were randomly paired with students without communication from the college and without any determination of whether the two would work well together or not. This conversation demonstrates the lack of communication between the educational body and the preceptor.

> What happened was you put your name in the hat, say, "Yeah, I'm willing to take a student." and then you got assigned one (Matt's Interview).

Kurt described his point of view on communication between the educational institution and the paramedic service, suggesting that there was already a sufficient amount of communication between the two. Being in a management position, Kurt had assigned an individual to be the liaison between the colleges and the paramedic service. He discussed how there were multiple meetings and open lines of communication between the two. Kurt did not discuss whether this information was then relayed down to the preceptors or if all the coordination was done at the management level.

### *Communication Between the Paramedic Service and the Preceptor*

Carter discussed above that there was a lack of communication between the paramedic services he had previously worked for and their nearby educational bodies, but also touched on the

lack of communication between the paramedic service and the preceptor. This is in terms of the management positions.

> There needs to be a formal communication train in there so that someone governs the preceptor. Which does not happen, to the best of my knowledge, does not happen in EMS services (Carter's Interview).

Most of the participants spoke of communication in terms of lack of communication between the paramedic service and the educational bodies. However, not many touched on the topic of communication between the preceptor and their management.

Crystal spoke briefly about how she never heard much information from her management as a preceptor. She shared her experience of feeling out of the loop as a preceptor. She explained that she had not been given a student for a couple of years. When she approached her management to discuss why this was happening, they were unable to give her a direct answer. She inadvertently described there being no open lines of communication between the preceptor and management within the paramedic service that she worked for.

From Penny's point of view, there is a lack of communication between institutional levels, including educational bodies, paramedic services, preceptors, and students. She attributes the reason behind this to a lack of training.

> I don't think we even scratch the surface of communication and like leadership skills or like interpersonal skills enough to be able to do that. Like, we barely do that enough with patients, and then when you're dealing with a co-worker or a peer or a student, like, those are privileged positions that I don't think we have enough training to deal with (Penny's Interview).

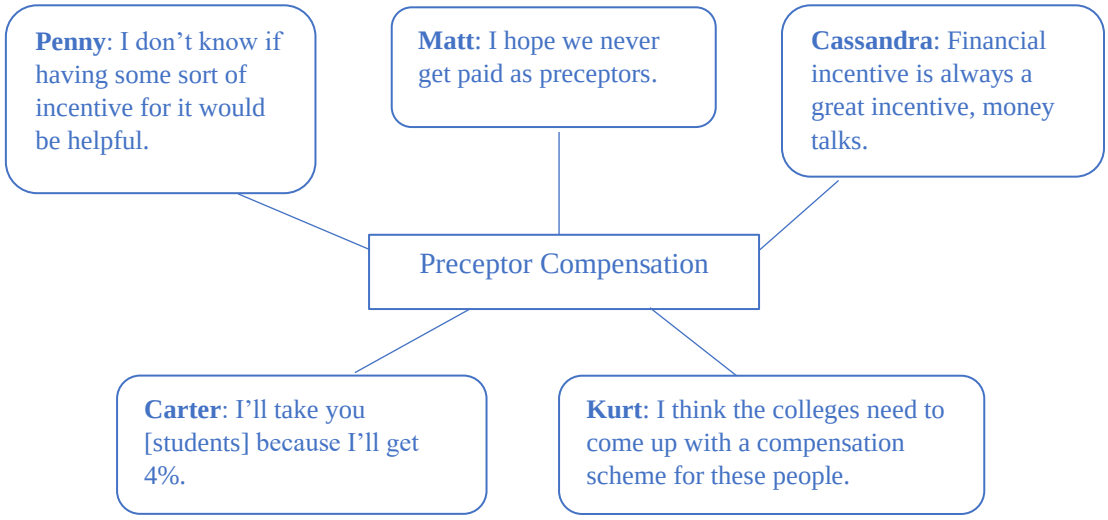
While there might be verbal communication, Penny expressed that there is not enough preceptor training in order to demonstrate the proper ways to communicate. She feels there is a much deeper level of communication that must be taken on, more than just small talk.

## Preceptor Compensation

The discussion of compensation for the preceptor came up in five of the six participant interviews. There were many conflicting opinions on the value of compensation for preceptors, including both the type of compensation, and the benefits and consequences it could bring to preceptors and students.

**Figure 4**

*Preceptor Compensation*




### *The Benefits and Consequences of Preceptor Compensation*

There were two main types of compensation that were discussed throughout the six individual participant interviews. Financial compensation and professional development.

Penny values both personal and professional development and believes there would be benefits to implementing preceptor compensation as professional development. This would include some kind of incentive for the position. She does not believe that the incentive needs to be

financial but could include other things like training courses that would enhance professional development.

Carter, Kurt, and Cassandra spoke of preceptor compensation in terms of money. While they were on the fence about whether it could provide more value or harm to preceptors, they both led with the idea that the compensation would be financial.

The participant that disagreed with preceptor compensation, Matt, specifically stated that preceptors should not have financial compensation due to the risks being too high and the downfall landing on the student. However, he did not discuss the possibility of preceptor compensation in other regards, including but not limited to professional development.

Penny and Carter were both very undecided on the potential benefits of compensation for preceptors. Penny strongly values the work she does and sees being a preceptor as part of her duty as a paramedic to train the next generation. If preceptor compensation was to be put in place, Penny expressed that this should be done by the paramedic service that the preceptor works for.

Carter was neither for nor against preceptor compensation but did worry that such an implementation could peak interest in the wrong individuals. He views the preceptor role as a volunteer position, which includes putting in work both while on the job and at home, freshening up on your own education to provide for the student. Carter was unaware of any paramedic services in Ontario that offered their preceptors financial support. After being informed that there were some paramedic services that viewed being a preceptor as professional development and offered financial incentives, he expressed that he felt including a financial incentive could lead individuals to take the position just for the sake of the extra money and not have the drive or passion for training their students. Carter specifically stated: “You don’t want to have people seeking out that 4%.”

Cassandra expressed that money was always a good incentive, but there were downfalls that she was worried about. She did not want any financial incentive to push people in becoming preceptors for the wrong reasons, similar to Carter's view. Cassandra stated, "I think there's also that people aren't in it for the right reasons; they're just in it to get paid more."

She brought up a discussion point about how the financial incentive could also promote better preceptors. She addressed how preceptors could be held to a higher standard if they were given a financial incentive. They would be better able to enforce mandatory training and maintain high levels of professionalism, care, and support.

> If you're paying them to do it, you can hold them to that standard, whereas if you're not paying them to do it, it's like okay, can you please do this training, can you please do this paperwork, but I know you aren't being paid to do it, so how far can I really push you to do it (Cassandra's interview).

Kurt had a very strong opinion that there was a need for preceptor compensation. He expressed how the preceptor position was powerful and very much necessary to continue to progress within paramedicine. In his opinion, this compensation plan should come from the educational bodies that the students are coming from.

> I think the colleges need to come up with a compensation scheme for these people, whether it's a stiffened or something averaged out over the time that they're doing, and it's not 25 or 50 cents or a buck an hour. I'm talking 5 or 10 bucks an hour because they're doing a very significant role that is absolutely required. It's no different than residency for an ED (Kurt's Interview).

Matt was the only participant that came out transparently stating that he was completely against financial compensation. Similar to both Cassandra and Carter's view on financial incentives pushing the wrong people into the role, Matt discussed how it could devalue the work preceptors do. He strongly believed that a financial incentive would push individuals to take on the role of preceptors, strictly to have the student perform the tasks that they did not want to complete.

> To me, it introduces… you doing it for the little extra bit of money, if you're doing it for someone to carry your bags or to do all the work that you don't want to do, the lousy tasks, the medial work that you don't want to do, you (Matt's Interview).

In conclusion, there were many discussions about the pros and cons of preceptor compensation. Some of the participants were uncertain if the benefit would outweigh the risks, some viewed it as necessary; and others disagreed with preceptor compensation completely. There was an overall understanding that preceptor compensation, if implemented, should be financial compensation. Although the discussion of turning precepting into a professional development position was not out of the question.

## Chapter 7 - Discussion

There has been a large shift within paramedicine over the last couple of decades, which is demonstrated by the research presented in the review of the literature. Slade (2007), O'Meara, Williams, and Hickson (2015), and Barke (2016), recommended further research regarding preceptor training programs in order to better understand if there would be value in making changes. In Edwards (2011) review of literature, he underlined that paramedics were not often given any prior training in order to become preceptors, and suggested this practise be reviewed.

He more broadly recommended that there be further research into paramedic preceptorship as a whole in order to get a better understanding of its function.

In this research, I specifically focused on exploring the experiences of students and preceptors during preceptorship. I was interested in the stories of paramedics who have experience as preceptors, in order to learn what events and experiences they chose to share. I chose narrative inquiry as it would allow individuals to tell their own stories as they described their experiences. By attending to personal and social events, I hoped my research would allow me to examine the participants' feelings, hopes, and desires as well as the specific conditions in which their experiences occurred (Clandinin & Connelly, 2000). Six research participants within the region of Ontario were chosen on a first come, first served basis. The study adopted a sociocultural theoretical framework focusing on Vygotsky's (1978) zone of proximal development, where the relational space between what you know and what you can accomplish lies within the more knowledgeable individual and their guidance. This seemed appropriate for understanding the experiences of preceptorship, both as a student and as a preceptor/mentor. In addition, the research drew on Rogoff's (2003) theory of guided participation in order to understand the social interactions between the student and preceptor during paramedic preceptorship experiences and how tools play a role within these interactions. The way that guided participation understands interpersonal interactions within learning was closely related to what I set out to understand with this research.

Within the research, the most common themes that were evident within the six narrative interviews were: i) the role of education for preceptors; ii) the importance of interpersonal relationships; iii) the need for communication among institutional levels; and iv) preceptor compensation. These themes represent many instances of guided participation, which is used as a

way to look at all interpersonal interactions and arrangements (Rogoff, 1990). The participants revealed they viewed their role as a preceptor as a shared activity, meaning while they provide guidance, education, and knowledge to their students, they also value the knowledge and learning they receive from them in the process. The paramedic student actively participates and engages in the tasks they would perform as a paramedic, with their preceptor acting as their mentor, providing them with guidance. While the main goal is to guide their student to success as a paramedic, the preceptors learn from the experience as well. It is clear there is active participation within the community, which plays a large role in the success of the students' education and the positive outcome of their experiences.

The first theme, the role of education for preceptors, revealed a focus on the need for increased education for preceptors and some modification within the preceptor process. Ultimately, the participants in this study believed there would be immense value in educating preceptors in order for them to be able to provide better guidance and act as mentors for their students. The theme also displayed the need for some modification to the current preceptorship model. There was an interest across multiple participants to implement a residency in place of the preceptorship. The participants indicated that the students needed more time actively participating in order to become more familiar and comfortable in their new roles as paramedics.

The importance of interpersonal relationships was depicted as the second theme. Referring to Rogoff's (2003) theory of guided participation within this sociocultural framework, the role of interpersonal relationships takes on an important role in her account; this was also evident in the participants' descriptions. The participants spoke about their experiences and how they were provided with a safe environment in which to explore and fail in order to learn. They actively encouraged students' active participation within preceptorship. This meant that they were going to

make mistakes. However, they understood there was a large value in allowing them to learn from these mistakes. These social interactions and activities throughout the student's preceptorship allow them to accomplish the reoccurring goal of becoming a successful paramedic. The interpersonal relationships within paramedic preceptorship can play a large role in whether the student has a positive or negative experience. This, in turn, can influence their education and their learning experience.

A very important topic for all the participants within this research study was the need for communication among institutional levels. Communication was considered to be a very valuable tool within the preceptor and student relationship discussed within the interpersonal relationships theme. However, it is also a very valuable tool in terms of communicating across institutional levels. In order for the preceptor to be successful, the participants felt that it was important to include more open lines of communication between the paramedic service and the educational bodies that their students were coming from.

The final theme depicted the different benefits and downfalls of introducing compensation to the preceptor. There were differing opinions on whether this would be useful or act as more of a hindrance in terms of gaining individuals interested solely in the compensation rather than the teaching and education. A few of the participants discussed compensation in terms of a tool that could be used to allow the paramedic service to help hold the preceptors more accountable for their training. Other participants viewed compensation as a negative and believed it would lead to the recruitment of preceptors that valued the extra money or compensation more than the students' education and success.

With the use of Vygotsky's sociocultural theory (1978) and Rogoff's guided participation theory (2003), this study was able to take the participants' personal interpretations of their social

interactions in relation to their success and failures with guided participation throughout their preceptorship. Looking at this through Vygotsky's (1978) sociocultural lens and zone of proximal development, it provides a clearer image of the importance of the preceptor's education in order for them to be capable of being a more knowledgeable individual and to successfully provide their students with guidance. The participants' desire for more education contributes to their willingness to provide a better education to their students to allow them to better succeed.

Vygotsky's (1978) concept of the zone of proximal development is a valuable construct when considering preceptorship as a mentoring practise. Within the theory, there is a large importance placed on the nurturing relationship required in order to provide guidance. When referring to Rogoff's guided participation (2003), it is clear that the students were better able to play active roles within their learning with the development of interpersonal relationships with their preceptors and nurturing relationships. Vygotsky (1978) and Rogoff (2003) both draw on the importance of the use of tools. Interactions are mediated by things like language, tools, and values. Using communication as a tool is important in being able to guide the student in the right direction. In order for the preceptor to be able to provide structured opportunities for observation and participation (Rogoff, 2003), they must first be able to communicate across institutional levels and with their management team.

The use of communication among management levels is crucial in terms of allowing the conversations to expand. These open lines of communication could allow all individuals involved to share their ideas, be heard, and in turn, create stronger leadership and community. In doing so, the conversation about compensation can be brought in. It was clear that preceptor compensation was a common thought among the participants, but the views on whether it was positive or negative provided mixed results. Rogoff's guided participation theory (2003) reflects on how each

individual's personal experience is a result of their social and cultural interactions. Specifically, in this instance, it is possible that the social and cultural interactions these individuals had during their own paramedic preceptorship have impacted the way they view their role as a preceptor in terms of being a part of their duty or professional development.

The way we assess, our expectations, the tools and materials that are used, they all contribute to how we understand what learning should look like. There is not just one view on how to educate others, but many. The participant interviews and their narrative accounts shared many of the same ideas, thoughts, and experiences. The participants all discussed how their instructional models were derived from their experiences with their own student preceptorship.

**Limitations**

The purpose of this study was to conduct in-depth interviews about the participants' experiences during their student preceptorship and as preceptor themselves. The analysis of the data was done by transcription of the data and interpretation of the narratives. The interpretation of this information by the researcher can be seen as a limitation based on the many possible understandings of the narratives. Furthermore, the narratives that were told by the participants are memories of what they recall from their experience and can be remembered incorrectly or have a blurred line between a fantasy and the reality of the memory. Lastly, while the participants did have a diverse range of experience as paramedics, perhaps the inclusion of participants with either more or less experience might present a different picture.

**Potential Contributions**

The results of this study may contribute in a number of ways to our understanding of paramedic experiences with regard to preceptorship. One of the potential contributions of my research is to explore how prepared paramedics feel coming out of their preceptorships and how

competent practising paramedics feel about taking on the task of becoming a mentor. Gaining more knowledge on how different students were taught during their preceptorship, and the experiences they had, can help understand the process. With that being said, one can look at the different standards held by the surrounding colleges and paramedic services in Ontario. The understanding of preceptorship can also help contribute to addressing any concerns paramedics have and help discover potential issues regarding public safety. This research might also be beneficial to other health care professions that use preceptorship, gathering the ideas and opinions of individuals who have experience as preceptors. Lastly, this research can potentially aid directors of paramedic programs and paramedic services in continuously evaluating the educational quality of their programs by incorporating open lines of communication.

**Future research**

As seen within the literature review, there is a need for more research within paramedic preceptorship. There is a large potential to have increased research in Ontario in order to validate whether there is a requirement to change the current practises or not.

From a sociocultural perspective, extending the study to a larger group would be beneficial in understanding further the different aspects of preceptorship within Ontario. More specifically, being more cognizant of researching groups of participants with similar years of experience as a paramedic in order to differentiate if years of experience changes the outcome of the results. Being able to compare the similarities and differences, as well as the experiences from the preceptors would help determine the further need and direction for more specific research. Once there is a better understanding and knowledge of the different varieties of preceptorship experiences across all of Ontario, more specific topics can be investigated, including but not limited to, preceptor

training programs, student success rates based on their preceptor pairings, success rates once graduated, and the factors that help determine a successful preceptor.

Specifically, from my research, I can conclude that there was an interest in the possibility of changing paramedic preceptorship into a residency. More research into the use of residency within paramedic education could be beneficial in determining whether this would be a successful practise or not. My research also revealed an interest in the use of compensation for preceptors. Future research into the positive and negative outcomes of the different types of compensation currently used within paramedic preceptorship could help determine if this practise would prove beneficial to preceptors. Lastly, a large interest was placed in the possibility of implementing more preceptor training programs. Gaining a better idea of the programs that are currently used within Canada and their success rates could help determine if there is value in a preceptor training course.

Some further suggestions for future research would be to consider if gender plays a role in the way the participants view and live their experiences. Similarly, determining if the number of years of experience plays a role in the way experiences are perceived could be useful information.

**Final Remarks**

Prior to conducting this research, I experienced the process of becoming a paramedic in Ontario and still work as one today. Based on those experiences, I initially had the preconceived notion that the participants would reveal an overwhelming need for a more structured educational practise for preceptors. While increased education and the modification of the current preceptorship practises were important aspects brought up by the participants as presented within their narrative interviews, they also identified many other facets of education. Overall, I have learned from this research the importance of listening to people, hearing their experiences, and listening to their understanding of those events. In doing so, one can gather a more concise and

accurate representation of what is needed within that situation, rather than making assumptions. Perhaps the place to start would be to allow the conversation to expand with better communication among institutional levels. A lack of communication can affect the whole picture; therefore, the use of language could allow those involved to create a stronger community and leadership by working together.

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# Appendices

**Appendix A:** Recruitment Letter

To whom it may concern,

My name is Julia, and I am a graduate student in the faculty of education at the University of Ottawa. I am writing to invite you to participate in my ethics approved research study about paramedic preceptorship experiences.

**The objective** of this research is to explore paramedic preceptorships in order to gain more information and insight into their perspectives and experiences.

**Those eligible** for the study must have worked as a paramedic for a minimum of two years in Ontario and have been a preceptor to at least one paramedic student. This research requires approximately 5 to 6 participants who will be chosen based on a first come, first served basis.

If you decide to participate in this study, you will have your own individual open-ended narrative interview that will be audio recorded. A narrative discussion will take place in order to encourage you to express the important aspects of your experiences. These discussions will gather information about your experiences during your preceptorship, and now as a practising paramedic, your beliefs about your role as a preceptor. Some of the interview will focus on gaining information about your background, perceptions, and experiences about the effectiveness of your own training, and the pedagogical methods you use to train others. The interview is estimated to take 60-90 minutes and will encourage engaging discussions about your experiences while always maintaining confidentiality and anonymity.

Due to COVID-19, the interview will be online as a video conference. While the audio will be recorded, there will be no video recording. The interview will be scheduled based on a date and time that best works for you. This might include weekdays, weekends, morning, afternoon, or evening time slots. The interview date and time will be discussed individually with each participant via email.

Remember, this is completely voluntary. If you'd like to participate or have any questions about the study, please email or contact me.

Sincerely,

Julia Gagnon

**Appendix B:** Ethics Approval

26/01/2021

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

**CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL**

| | |
|---|---|
| **Numéro du dossier / Ethics File Number** | S-12-20-6306 |
| **Titre du projet / Project Title** | A Narrative Inquiry on Paramedic Preceptorship Experiences |
| **Type de projet / Project Type** | Thèse de maîtrise / Master's thesis |
| **Statut du projet / Project Status** | Approuvé / Approved |
| **Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)** | 26/01/2021 |
| **Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)** | 25/01/2022 |

**Équipe de recherche / Research Team**

| Chercheur / Researcher | Affiliation | Role |
|---|---|---|
| Julia GAGNON | Faculté d'éducation / Faculty of Education | Chercheur Principal / Principal Investigator |
| Barbara GRAVES | Faculté d'éducation / Faculty of Education | Superviseur / Supervisor |

**Conditions spéciales ou commentaires / Special conditions or comments**

**Appendix C:** Consent Form


Université d'Ottawa

Faculté d'éducation

University of Ottawa

Faculty of Education

University of Ottawa

**Project title:** A Narrative Inquiry on Paramedic Preceptorship Experiences
**Names of researchers and contact information**


| | |
|---|---|
| Ms. Julia Gagnon | Barbara Graves, Ph.D. |
| Master's student | Thesis supervisor |
| Faculty of Education | Faculty of Education |
| University of Ottawa | University of Ottawa |


**Invitation to Participate:** I have been invited to participate in a research project conducted by Ms. Julia Gagnon under the supervision of Professor Graves as part of her master's thesis, at the University of Ottawa.

**Purpose of the Study:** The objective of this study is to explore paramedic preceptorships in order to gain more information and insight into their perspectives and experiences in both the student and preceptor role. This will in turn allow for a better understanding of paramedic preceptorships. This topic holds importance due to the role preceptors take in assuring public safety through the kinds of instruction they give new trainees.

**Participation:** My participation will include my own individual in-depth open-ended interview that will be audio recorded. A semi structured discussion will take place in order to encourage me, the participant, to express the important aspects of my experiences. These discussions will gather information about my experiences with my own preceptorship, and my experiences and beliefs about my role as a preceptor. The majority of the interview questions will focus on gaining information about my background, perceptions and experiences about the effectiveness of my training, and the pedagogical methods I use to train others. My interview is estimated to take 60-90 minutes and consist of engaging deep conversations to understand my, the participants, individual stories. These interviews will encourage engaging discussions about my experiences, while always maintaining confidentiality and anonymity.

**Assessment of risks:** My participation in this study entails no foreseeable risks. However, if I experience any discomfort, Ms. Gagnon has assured me that she will make every effort to minimize this discomfort. I may decide to stop the interview at any time.

**Benefits:** By expressing some personal ideas about my experiences as a paramedic student during preceptorship as well as my experiences as a preceptor, I will contribute to an enlarged understanding of the subject from the perspective of a paramedic.

**Privacy of participants:** I have received assurance from Ms. Gagnon that the information I share will remain strictly confidential. My identity will be protected. A pseudonym will be used in place of my personal information when needing to discuss the results or analysis.

**Confidentiality and conservation of data:** By participating in an online interview, someone around me may overhear what I am saying. It is therefore important that I plan well for the interview in a place that provides me with maximum of privacy. The data will be used for the purpose of the master's thesis and will be kept for five years. I have been assured that the audio recording and written transcriptions will be kept in a secure manner at the researcher's home during the research and be stored on a password protected computer only used by the researcher. After the thesis defence, that data will be moved over to a password protected USB and securely erased from the researcher's computer. Once the five-year term is up, all electronic data on the USB will be securely erased.

**Voluntary Participation**: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be destroyed.

**Acceptance:** I, _____[*Name of participant*], agree to participate in the above research study conducted by Ms. Julia Gagnon as part of her master's thesis at the University of Ottawa.

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Ottawa ON K1N 6N5
Canada

www.uOttawa.ca

If I have any questions about the study, I may contact Ms. Gagnon or Professor Graves.

If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Participant Name Signature:
Date:

Researcher Name Signature:
Date: