Improving Continuing Professional Education: A Study of Paramedic Ethical Decision-Making Dilemmas and Supports

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Abstract: The purpose of this paper is to share information on The Learning EMS Ethics Project, referred to as the LEEP project. LEEP is a long-term study of paramedic navigation of ethical dilemmas and decision making in prehospital care. The project additionally aims to contribute to the future development of future paramedic capacity building from education and licensure, to evolving expertise in the field, and continuing professional education.

Keywords: health professions, ethics, decision making, emergency medicine, experiential learning

Paramedicine, often referred to as prehospital emergency medical care, is a relatively new profession and while it has had aspects of protocol-driven decision making, it has evolved considerably in complexity and the autonomy associated with the role of a paramedic. Currently, paramedics have a high degree of autonomy, and a density of decision-making, as shown by making difficult, intense decisions in compressed time frames. Despite the growth of complex duties, professional paramedic preparation programs are still early in their approaches to curriculum and credentialing. In fact, depending upon the state in which a paramedic practices, she/he may be licensed, registered, certified, or practicing. With regard to academic or empirical understanding of the role of ethics or ethical decision making in prehospital emergency clinical situations, there are very few studies of how paramedics learn about, approach or build experience in this vital aspect of their work in the field.

This paper shares work from the Learning EMS (Emergency Medical Services) Ethics Project, referred to as LEEP. The purpose of LEEP is the long-term study of how paramedics develop field expertise in navigating ethical dilemmas and situations. The project also has a goal of the development of corresponding connections to future paramedic education and continuing professional education.

Why study this topic? Being skilled in navigating difficult, ethical situations is a mainstay of paramedic practice and it is important to everyone to have high quality medical care in emergency situations that take place in prehospital environments. For professional paramedics, ethical decision making is a source of stress, requires continuous learning, and requires adaptation to an ever-increasing scope of paramedic practice. There are few empirically driven ethics studies that guide or support paramedic formal education and learning, and/or their expertise development and growth in the field.

Literature Review/Background

The paramedic literature to date is largely international and relatively sparse--predominantly consisting of small studies taking place in the United Kingdom, Ireland, Australia, New Zealand,

and the United States. The prevailing approaches of existing studies on paramedic ethics and decision making tend to focus upon the use of protocols such as resuscitation, updates and advances in life-saving measures, and transport. Of those studies that specifically address ethics, the framework varies, or there is an absence of a framework, and in its place a general thematic exploration of paramedic field awareness and experience.

The National Health Service in the United Kingdom, for instance, has made recent strides in their paramedic education and recently adopted the six Cs of compassion, care, courage, communication, commitment and competency" (Eaton, 2019, p. 2094). Eaton's (2019) study researches paramedic learning of values during the practicum phase of their preparatory education program and key findings include the notion that paramedic students do differentiate between theoretical (text) based learning and practical learning when it comes to ethics, and are oriented towards learning practically. Further, they found that students did not receive a sufficient grounding during their educational experiences to meaningfully build upon once in their future practice.

Torabi et al. (2019) conducted research on the barriers to ethical decision making in Iran prehospital care. Their qualitative study suggests that most paramedic navigation of ethics is dependent upon several broad factors such as the situational elements, patient-related characteristics, and known environmental elements. Further, the authors suggest that it to understand navigation of ethical situations, paramedics work aims to sustain a balance between input and output knowledge, which includes the expectations and awareness of patients and their families, and the role of futile care, where a positive outcome is not expected. The study found that in the presence of an uncoordinated health care system where there is low trust in the services that a patient may receive or the support a paramedic may receive, that decision making may be more fluid and unpredictable in the direction of attempting to balance what is good for the patient with what is best for the actors within a healthcare system. Finally, the researchers found that there are certain types of paradoxes which surface, such as inner conflict between the law, values, regulations, and beliefs.

With relatively parallel findings, researchers in the United Kingdom interviewed focus groups of emergency clinicians, exploring decision making in relation to case vignettes (Brandling et al., 2017). Their study found that decision making in critical care situations was based upon several inter-twined elements, some similar in nature to Torabi (2019) with perhaps a few more additions. For instance, findings indicated that the factual information available to the EMS provider such as existence of a do-not-resuscitate order (DNR), or patient illness information played a large role in decision making. Paramedics navigated structural factors such as recommended or required protocols, transport distance to hospital, and available guidance and research. Paramedics were also influenced by cultural beliefs and values—their perception of the age of patient, perception of suffering, and how that influenced a decision about gauging, "what would you do if it were (a loved one or yourself)?" The findings suggested that paramedics consider interpersonal factors including the culture of their ambulance or other professional colleagues and hospital, perceived reactions or expectations of bystanders and calculation of risk factors such as personal safety, patient safety, and legal issues. Finally, personal values and beliefs--confidence in the system and in one's professional capacities, experience as a

prehospital caregiver, and the presence of fatigue were found to be critical components of ethical situation navigation.

In Ireland, a recent quantitative survey analyzed nearly 500 advanced paramedic recent graduates' responses in relation to their awareness of legal legislation regarding the ethics of DNR and the processes that they felt influenced their related ethical decision making in the field. Paramedics were asked for demographic information as well as for examples of when case study situations may go differently based upon the unique circumstances of a given emergent situation. Responses were classified about whether respondents felt a decision was a) an unwise decision, b) a decision not based upon sound medical principles; or c) decision may lead to patient's harm or death. One of their central study findings was that paramedics did not draw primarily upon their training, instead they relied upon experience to navigate situations, especially if the training they had received was hypothetical or theoretical rather than practical. The concepts of beneficence, non-maleficence, and respect for autonomy were central to decision-making (Bury, et. al, 2019). Similarly, they identified patterns in responses in four categories akin to the studies referenced above, labeling the categories as clinical, attitudinal, comprehension, and 'acting in the best interest of'. Yet another additional qualitative study reported that paramedics often rely upon role perception during decision making--and their perception of the role and responsibilities, which could be framed as boundary setting, largely influenced their decision making and added a sense of legitimacy or confidence in their choices. (Simpson et.al, 2017)

While the existing literature suggested some common themes and served as a directional guide, it did not fully address our goal of more deeply identifying and understanding how experienced paramedics learn to and actually do navigate ethical situations and how the learning itself, assumed to be developing expertise, occurs in the field.

Developing occupational expertise via everyday work activities and interactions is well studied and Ericsson et al.(2018) theorize that expertise is a dynamic that is a reflection of knowledge which is accepted or 'known' within a given field or occupation. In academic terms this is sometimes referred to as a canon. This knowledge is additionally integrated with environmentally situated factors, in this case the culture of paramedic work, the specific geographic or organizational context, and any personal factors specific to individual professionals. Building upon that and specific to the health professions education, mastery learning is a model that advocates for the intentional capacity building of all learners to an expertise or expert level, rather than aiming for a bell or distributed curve in learning and performance. In a recent (2020) book on mastery learning in health professions education, Issa, et. al. (2020) address mastery learning in emergency clinical care, encompassing paramedics. Their writing posits that deliberate practice with targeted feedback, and rapid cycle deliberate practice (RCDP), is highly effective in emergent care situations and its success not only depends upon the initial learning experiences but also upon a reoccurring cycle of spaced or distributed learning--refreshers or updates via continuing professional education (Issaet et al., 2020). Combining these concepts, our future goal is of continuing professional education for paramedics that addresses how best to integrate relevant experientially derived expertise with opportunities for periodic mastery learning.

In the United States, paramedic education requirements vary from state to state. There is a National Registry Paramedic (NPR), which contains several conditions and requirements, and it is also accepted in some states as a reciprocal credential. Within preparation programs, there are a range of textbooks used, and one of the leading texts, for example, is Sanders' Paramedic Textbook, a fifth edition published by the American Academy of Orthopedic Surgeons (2019). Within it, there is one short chapter that addresses ethical decision making in the field. The foundational curriculum draws upon Iserson's model of ethical decision making (Sanders, et. al., 2019), which was developed from his practice situated within hospital emergency departments.

We adapted Iserson's *Rapid Approach to Ethical Problems in an Emergency* for use as the conceptual framework to guide the first qualitative study of the Learning EMS Ethics Project. It was a reasonable place to begin. In spite of the fact it was originally intended for hospital emergency department physician use, the model is already taught in paramedic education programs which use the Sanders' textbook, and it suggests a series of steps that can be used during emergent ethical medical situations.

Iserson et al. (1995) suggest a process when there isn't time for a systematic lengthier process. In emergent cases, health professionals' first step is to reflect and see if any prior dilemma has led the professional to draw upon an experiential 'rule' that can be applied in the current context. If the answer is yes, the paramedic would then repeat the prior situational response. If no, the next step is to consider alternatives that would buy time for consideration and deliberation, so long as there is not undue risk to the patient (Iserson et al., 1995, p. 45). Next, Iserson et al. (1995) suggests communication or consult with others, for example, a medical director.

In prehospital settings, this is not always an option, particularly in cases of patient resuscitation. The next recommended steps include three tests: impartiality, universalizability, and interpersonal justifiability. In lay terms, a paramedic would ask her or himself: Would I be willing to have this action performed if I or a loved one were the patient? Would this be what is likely to be done in a similar situation? And can I justify my actions to others, with sound rationales?

Research Design, Findings and Discussion

The Learning EMS Ethics project research design is phased. The first phase utilized a case study design and included the interview of thirteen experienced paramedics in an approximately 90-minute semi-structured interview. All paramedics were from one Southeastern state; thus, it is assumed that there was some basic shared educational preparation and working contextual elements. The first phased study in some sense, explored whether and how Iserson's model played a role in paramedic navigation of ethical situations, whether explicitly or indirectly. In addition, the study yielded data about the nature of paramedic experience during ethical situations. In that respect, the study was *in media res*, or 'in the middle of'. The beginning point for the study protocol was not chronological in following a paramedic participant's education, licensure, and progressive experience. Rather, it was an exploration of navigation of emergent ethical dilemmas and situations, encouraging deep reflection about what paramedics were drawing upon and acting upon while in the moment (Barcinas & Braithwaite, 2019).

After analyzing the findings from the first study, we recognized several important things. First, we learned that paramedics do not explicitly think of or rely upon a specific ethical model or framework in the moment, including not drawing upon the suggested Iserson steps in the textbook predominantly used in their preparatory education. Their descriptions and narrative reports reflect little systemic structure.

Second, we also learned quite a bit about how some partial components or assumptions suggested by Iserson were present within the navigation or decision making process, but it was incomplete as a picture for understanding an unfolding situation, or even the reflective process that occurred after difficult dilemmas took place. For example, participants did not indicate that they often consult prior memories or consult external directors with immediacy during an unfolding situation.

Third, our findings indicated that there is a gradual, experiential development of expertise and that process and evolving expertise serves as the influencer during ethical decision-making situations. This process was retrospective--one where learning occurred through repetitive cycles of remembering, analyzing, and personal consideration. Paramedics considered the ways that an evolving sense of responsibility and sense of being present in community with their patients and patients' loved ones played a role in decision making, as well as their professional accountability.

Building upon these findings, we adapted the protocol to the first study, adding, removing and adjusting questions that expand the data collection, and that allow exploration of participants' informal experiential learning, a broader systems analysis of the situational influences, and of their reflection and refinement associated with expertise building. When we returned to our internal review board (IRB), we made the decision to request a broad consent, allowing us to look forward in conducting cascading incremental case studies, and to combine case study data as we proceed forward.

Next, we conducted a pilot interview phase of the second case study, which is sometimes referred to in qualitative research as cognitive interviewing. We are now actively recruiting additional participants—licensed paramedics with at least 3-5 years of professional experience. The phase two pilot data combined with the phase one findings also led to the bracketing of other findings which will likely inform additional future case studies. These include research questions about the degree of variance we found in participant approach to navigating ethical decision making, with accountability to the patient or the self being the predominant underlying sense-making. The role of fatigue and tiredness, which was a finding in a comparable European study (Brandling et al., 2017) appeared to have two dimensions in our study—a literal fatigue associated with immediate shift schedules or intensity, and a fatigue that was rooted in a sense of *heaviness*, a weight that paramedics reported that was always present, as their experiences meant they routinely and repeatedly experienced issues with human life and death, human suffering, and the balancing of accountabilities to employers, colleagues, patients, families, communities and themselves.

The purpose of this paper proceedings was to share the phase one and phase two pilot findings of the Learning EMS Ethics Project (LEEP). The development of expert judgment in navigating

ethical dilemmas or difficult emergent situations is of crucial importance to paramedics and to all whom they serve, and we invite you to communicate with us for further information about LEEP and its contributions to adult learning, health professions, and continuing professional education.

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