ORIGINAL RESEARCH

A Qualitative Study of Paramedic Duty to Treat During Disaster Response

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ABSTRACT

Objectives: Disasters place unprecedented demands on emergency medical services and can test paramedics personal commitment as health care professionals. Despite this challenge, guidelines and codes of ethics are largely silent on the issue, providing little to no guidance on what is expected of paramedics or how they ought to approach their duty to treat in the face of risk. The objective of this research is to explore how paramedics view their duty to treat during disasters.

Methods: The authors employed qualitative methods to gather Australian paramedic perspectives.

Results: Our findings suggest that paramedic decisions around duty to treat will largely depend on individual perception of risk and competing obligations. A code of ethics for paramedics would be useful, but ultimately each paramedic will interpret these suggested guidelines based on individual values and the situational context.

Conclusions: Coming to an understanding of the legal issues involved and the ethical-social expectations in advance of a disaster may assist paramedics to respond willingly and appropriately. (*Disaster Med Public Health Preparedness*. 2019;13:191-196)

Key Words: paramedic, disaster, duty to treat, professional obligations, code of ethics

In 2003, the outbreak of severe acute respiratory syndrome (SARS) infected ~8400 people worldwide. The epidemic caused 813 deaths and billions of dollars in worldwide economic damage. Exposing the vulnerabilities of health care systems, health professionals bore the brunt of the outbreak and were the most at-risk population for SARS, accounting for 45% of probable or suspect cases in Toronto and 21% of all cases worldwide.[1] In every affected country, emergency health care professionals had to choose between providing care and protecting themselves—crystalizing an ethical challenge and fundamentally changing our assumptions about duty and risk.

The 9/11 terrorist attacks highlighted the risk associated with disaster response for emergency first responders. In all, 413 first responders died during the attacks, including 343 firefighters from the Fire Department of New York (FDNY), 60 police officers from the New York Police Department (NYPD) and the Port Authority Police Department (PAPD), and 10 from various emergency medical service agencies.[2] In addition to the deaths that occurred on the day of the attacks, over 800 hundred responders have died since 9/11 because of illness directly associated with their exposure to "Ground Zero." In addition to these deaths, a thousands more responders are suffering from ongoing physical and mental health impacts associated with their exposure to the World Trade Center (WTC) site. Over 2100 firefighters and medics have retired on disability with WTC-related illnesses, mostly lung disease and cancer, since 9/11. More than 7500 FDNY firefighters and medics have been treated for a 9/11 illness now almost 16 years later, and 1100 have cancer directly related to exposure to the WTC site.[2]

The ethical dilemmas faced by health professionals during disaster response were further highlighted by the experience of Memorial Medical Centre in New Orleans during the evacuation of patients after Hurricane Katrina and the subsequent flooding. Criminal charges were filed against a doctor and 2 emergency nurses for failure to meet standards of care. Questions about what may lead to censure, penalties from licensing boards, or lawsuits were subsequently asked by many health professionals, and led to joint publications and commentary by major health professional groups in the United States.[3]

More recently, the West Africa Ebola outbreak of 2014 killed more than 11,000 people, causing fear of global contagion.[4] Health care workers (HCWs) in West Africa were at high risk for Ebola infection owing to lack of appropriate triage procedures, insufficient equipment, and inadequate infection control practices. During 2014, a total of 162 (7.9%) of 2210 laboratory-confirmed or probable Ebola cases in adults occurred among HCWs, resulting in an incidence of Ebola

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infection among HCWs that was around 42 times higher than that among non-HCWs. The disproportionate burden of Ebola infection among HCWs placed further pressure on an already stressed or minimal health infrastructure, underscoring the need for increased understanding of transmission among HCWs and improved infection prevention and control measures to prevent Ebola infection among HCWs.[4]

The professional obligation to face these types of risk has been referred to as part of a larger duty to treat.[5,6] Contemporary ethical standards offer some guidance on treating patients during emergency situations, but they are largely silent on the issue of paramedic professional responsibility.[7] Paramedics are arguably not required to accept life-threatening risk while caring for patients, but there appears to be no uncontroversial way to establish a threshold at which risk acceptance becomes a duty.[8] Ethically speaking, when does the right to protect oneself from serious risk outweigh the duty to care for patients in need? Much of the existing discussion on this topic has its roots in ethical considerations and medical professionalism.

While the obligation to continue caring for patients in the face of personal risk is not found in the Hippocratic Oath, it has been a central tenet of medical professionalism since the Black Death plague of the 14th century. However, it was not until 1847 that the American Medical Association's (AMA) first Code of Ethics expressly addressed the issue by identifying that when pestilence prevails it is the professionals' "duty to face the danger and to continue their labours for the alleviation of suffering, even at the jeopardy of their own lives." This statement helped formalize a sense of physician duty that was sustained until the 1950s and 1960s. When domestic threats of infectious diseases such as Smallpox and Polio dissipated, such heroic statements vanished from the AMA Code.[9,10] Decades later, the HIV threat motivated changes in the code and language was added in 1986, suggesting that treating HIV-positive patients was required only if the physician was "emotionally able to do so."[8] This statement proved controversial and was revised 6 months later to the following: "A physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive."[10]

Updated after the 9/11 terrorist attacks and subsequent anthrax threat, the AMA's new "Social Contract with Humanity" now includes a Declaration of Professional Responsibility that is more reminiscent of the AMA's 1947 code: "We, the members of the world community of physicians, solemnly commit ourselves to …apply our knowledge and skills when needed, though doing so may put us at risk."[11] The AMA code now writes that "...because of their commitment to care for the sick and injured, individual physicians have an obligation to provide urgent medical care during disasters. This ethical obligation holds even in the face of greater than usual risks to their own safety, health or life." Although the AMA has moved in the right direction by outlining professional obligation, it fails to transparently detail how failure to comply with these obligations will be managed.

The Canadian Medical Association (CMA) released a revised Code of Ethics 1 year after the SARS outbreak in 2004. The Code is largely silent on the issue of professional obligations and acceptable standards of care, despite their direct experience with managing the SARS outbreak. However, the process of revision of the CMA Code was completed just at the cusp of SARS, and because of the length of time required for the CMA to engage with stakeholders and to ultimately gain approval by the CMA Board of Directors, the window of opportunity to include this was lost. One key revision of the 2004 code was the inclusion of a "Fundamental Responsibilities" section. However, this section fails to substantively address the issue of duty to respond or provide transparent guidelines. It is noteworthy that other health professions such as the Canadian Nurses Association Code of Ethics also reference this issue.

Of course, not all health professionals subscribe to a Code of Ethics. Australian paramedics are currently not required to register with a professional body to practice, although this is set to change with Australian ambulance services progressing toward national registration and inclusion in the National Registration and Accreditation Scheme (NRAS). Paramedics are set to become the 15th Australian profession in the scheme, regulated by the Australian Health Practitioners Regulation Authority (AHPRA) and joining the ranks of health professions including medicine, dentistry, nursing, and midwifery. However, many other ambulance services world-wide are not progressing toward professional registration. It is not clear whether they are covered by ethical principles and codes of ethics that govern the patient–professional relationship existing within other professional, registered health care bodies, or what their responsibilities and obligations are.

Relevant Australian Emergency Management Acts, Health Acts, and ambulance service regulations lack a clear focus on duty to treat and fail to address the ramifications of paramedic refusal to work. As Australia is a Common Law Country, the issue of duty to treat could potentially be managed through paramedics' individual employment contracts with their respective ambulance services, and failing to respond could potentially be addressed using pre-existing standard terms and conditions for employment.[12]

This paper articulates the findings of research on how Australian paramedics view their duty to treat during disasters, including reasons that may limit or override such a duty. Understanding these issues is important in enabling paramedics to make informed and defensible decisions during disasters.

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METHODS

This research used qualitative methods to gather Australian paramedic perspectives. Seven focus groups were conducted with a total of 44 participants consisting of paramedics from 6 of Australia's eight State and Territory-based Ambulance Services. Paramedic participants ranged in age from 21 to 57 years. In all, 79% identified as male and 21% identified as female. A total of 82% of participants had more than 10 years of experience working as a paramedic (ranging from 8 months to 16 years).

Paramedics were invited to participate through a mix of convenience and snowball sampling methods. Paramedics were not financially reimbursed for their participation. The focus group discussions were 90 minutes in length and were held in 5 different states across Australia (Victoria [n = 3], Western Australia [n = 1], New South Wales [n = 1], South Australia [n = 1], and Queensland [n = 1]). All focus groups were transcribed and reviewed by at least 3 research team members. Participants' views were analyzed and organized according to 3 key themes that emerged from the data: the scope of individual obligations of paramedics; the role and obligations of ambulance services; and the broader ethical context, respectively.

Ethics approval was granted by the Edith Cowan University Committee on Ethical Research on Humans to conduct focus groups with paramedics in Australia (Project Number: Project 13448).

RESULTS

Scope of Individual Obligations of Paramedics

Study participants were asked what they thought of the idea of duty to treat and the related individual obligations. Responses varied widely, covering a wide spectrum of views ranging from those who posited an absolute unlimited duty to treat to those who maintained that there should be clearly defined limits. Although 6 paramedic participants believed that there was a clear duty to treat based on their employment contracts, the majority (86%) of the 44 participants favored the idea that duty to treat cannot be considered an unlimited and absolute obligation. Similarly, only 8 paramedic participants appeared to be categorical, whereas the remaining participants wavered between views, often depending on the type of disaster being discussed.

One participant posed the question: "Don't we take on certain obligations when we commit to a career as a health professional"? This was met with a range of responses focusing on acceptable levels of risk and the question of whether there is an automatic expectation that paramedic health and well-being comes second to that of their patients. Focus group participants also discussed the issue of placing limitations on duty to treat, with one suggesting that paramedics should not have to put themselves at increased risk or be put in situations where "going into to work means that you have to accept the chance that you might catch some horrible disease – I think we need to remember that this is just a job, it's not worth our life – or exposing our loved ones and risking their life." Similarly, another paramedic suggested that "on an individual level, paramedics should retain the right to refuse – BUT – they have to justify it…they can't just say that they don't feel like working – there has to be some form of justification." In this way, this participant opened up the possibility that there can be legitimate limits that could justify a paramedic's decision to "opt out" of providing care.

However, who determines these limits and what factors influence paramedics in arriving at them? While the concept of an unlimited and absolute duty to treat was raised in all focus groups, upon further reflection and discussion paramedics began to contemplate the idea or the legitimate or acceptable limits on a paramedic duty to treat. Eventually, each group of paramedics began to articulate what could constitute "legitimate limits." The discussions had, by each of the 7 focus groups, ultimately ended up raising 2 similar themes associated with legitimate limits—personal choices and competing personal obligations.

Personal Choice

All participants felt that paramedics should be free to make decisions about their own safety, as well as their willingness to work, during disaster. One paramedic argued that "if the risk is high to the paramedic, then I totally understand that it is their personal decision whether they work or not." Another paramedic echoed this sentiment: "It is our decision alone – afterall, it's our life." Similarly, another paramedic was categorical about the need to allow paramedics to make their own decisions and apply limits to duty to treat: "You should not be pushed into a situation where you're expected to go beyond reasonable limits in providing care – you have to be able to say no – and be backed up by your employer – when the risk is too high." However, it should be noted that none of the paramedic participants attempted to define what "too high" meant in regard to this issue.

Competing Personal Obligations

Progressing from the discussion of legitimate limits on duty to treat, participants highlighted the competing obligations that paramedics will often face during disaster response. "There may be some very personal reasons why paramedics have other important, competing responsibilities and as a result can't fulfil their duty to treat". Another paramedic asked: "How can you fulfil your professional obligations while also fulfilling your personal obligations – surely everyone here today will admit that their primary duty of care is first and foremost to their family"? One paramedic summarized this overall sentiment among paramedics well when he offered that he was "very conflicted – I have a duty to treat, but I also have a duty to my family and at the end of the day I also have

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a duty to myself. Who has the right to tell me that one obligation is more important than the other"?

The Role and Obligations of Ambulance Services

All participants articulated that a paramedic's duty to treat and professional obligation goes hand-in-hand with an obligation on behalf of ambulance services to protect; that is, a duty to treat cannot be expected without employer commitment to providing the necessary education, resources, and support for paramedics. This may include providing accurate, evidence-based information on which paramedics could make decisions, through to ensuring that any enforced quarantine from duty was paid and family members were ensured safety and access to support services such as day care. Paramedics agreed that ambulance services have a reciprocal obligation to ensure that working conditions and available resources actually permit paramedics to carry out their duty to treat; these resources included priority access to vaccines, antiviral treatments, and appropriate personal protective equipment (PPE). It also included the need for ambulance services to give accurate, evidence-based information regarding risk to aid paramedics in making individual choices regarding whether they stay and work, or avoid potential risk.

The Broader Ethical Context

A code of ethics for paramedics would be useful, but ultimately paramedic participants identified that they would interpret these suggested guidelines based on their own values and context. It would therefore be beneficial for Australian ambulance services to engage in extensive consultation with the prehospital workforce when developing such a code of ethics to ensure that it reflects the predominant values and concerns of paramedics. However, it is important to note that there is not an automatic correlation between codes of ethics and legal standards or restrictions. Many registered professions that have a code of ethics do not explicitly address this issue of duty to respond in disaster situations.

Participants suggested that it is more important for those involved in prehospital education to play a role in ensuring that paramedic students understand the "fundamental responsibilities associated with being a health care worker" and help paramedics examine the scope and limits of their professional responsibility in these extreme situations. These analytical tools will be essential for future paramedics to make morally sound decisions about professional obligations and personal risk during disasters.

DISCUSSION

The findings of this research are consistent with existing literature, suggesting a lack of clarity and consensus of what is expected of HCWs in disasters and epidemics.[13–15] These findings also echo previous research exploring the limitations of duty to treat and professional obligations.[16–18] We identified that while some paramedics felt that they have an unlimited duty to care, overwhelmingly the consensus among the 44 paramedic participants was that they do not. It was interesting to note that when attempting to categorize and position themselves, around 85% of participants placed themselves somewhere in the middle—arguing that while paramedics do indeed have professional obligations, there have to be limits in place and an agreement by paramedics and employers alike that duty to treat during disaster is neither absolute nor unlimited. However, this research failed to clearly identify what these limits should be, and future research should address this important topic.

Ambulance Capacity

The inevitable increase in ambulance workload during a disaster—particularly one involving an infectious disease outbreak—must be considered in the context of reduced prehospital workforce availability. During the H1N1 (Swine flu) outbreak in 2009, the state of New South Wales in Australia reported a 13% increase in total calls for ambulance assistance (n = 853) and a 56% increase in "breathing problem" call types to the emergency ambulance communications number 000 (n = 466).[19] During the same outbreak, Ambulance Victoria identified that almost 2% of their emergency ambulance calls received during the peak 24 days of the outbreak were directly related to H1N1.[20]

This increase in workload will be coupled with potential exposure of paramedics to the influenza virus, something that participants in this research highlighted as a concern and influence over willingness to work. During the 2003 SARS pandemic, approximately half of the prehospital workforce were exposed to the disease within days of the outbreak and almost half of the 850 paramedics exposed to SARS were placed in home quarantine for a period of 10 days. Four were hospitalized with probable SARS.[21,22]

However, ambulance capacity will not be the other thing affected by paramedic exposure. Paramedics can become vectors for disease and will potentially spread disease to vulnerable parts of the community before realizing that they are infected. Concerningly, paramedic participants in this research highlighted a common lack of compliance with PPE and infection control measures in the prehospital environment and also suggested that rates of uptake of any new vaccinations and antiviral medications would be low: "Why should we be the guinea pigs for largely untested pharmaceuticals?" "Ambulance services may think that priority provision of vaccination and medications like tamiflu might encourage us to get out there on the frontline, but in reality I know I am not taking anything that hasn't been thoroughly tested." These findings echo those of previous Australian research, which also identified that even if a vaccination was to be made available to them during an emerging pandemic, they were unlikely to want to be among the first to take a largely untested

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vaccination.[20] This is concerning, as vaccination can prevent up to 90% of influenza cases.[23]

These views may be owing to misperceptions of the risk relating to pandemics, as well as the prevailing prehospital culture in Australia where paramedics do not feel as if their employers "have their back." Identifying potential initiatives for improving paramedic uptake of vaccination during an influenza pandemic should be a priority for ambulance services world-wide, and the provision of expanded prehospital education on communicable diseases outbreak control may be useful methods for addressing these concerns.

Paramedic Education

This research has identified that education will play a key role in providing paramedics with an understanding and appreciation of fundamental professional obligations by focusing attention on both the medical and ethical challenges involved with disaster response. This education should be provided at the undergraduate level to student paramedics and also as ongoing professional development for qualified paramedics. Educators can provide paramedic students with the knowledge required to understand the key concepts of disaster response and highlight important strategies (including the use of PPE and appropriate infection control measures) to protect themselves against risk during a disaster. To help experienced paramedics make informed choices, we need to ensure that ambulance services provide their employees with the best current information about risks, aiding paramedics to make defensible decisions in difficult circumstances.

Regulating Paramedics

The Australian NRAS was established in 2010 to ensure the safety of consumers of health services by registering health practitioners. Under the National Scheme, National Boards and the AHPRA work together to ensure that practitioners are appropriately qualified and competent to practise a registered health profession. National Boards exercise functions in accordance with the *Health Practitioner Regulation National Law*, as in force in each Australian State and Territory. Australian Health Ministers agreed on the 6th of November 2015 to progress the inclusion of paramedics under the National Scheme, and on the 24th of March 2017 Ministers met as the Australian Health Workforce Ministerial Council to consider a draft of the *Health Practitioner Regulation National Law Amendment Bill 2017* that, if passed, will amend the national law to regulate paramedics under the National Scheme. Subject to the national law being amended, Australian paramedics will be able to be registered nationally for the first time, the title "paramedic" will be protected nationally, and paramedicine will be a registered health profession. National regulation of paramedics is expected to start in the second half of 2018. Once paramedic regulation is official, an associated code of ethics of prehospital response should be developed as a priority, which should give some guidance to paramedics regarding duty to respond.

Limitations

The findings reported in this publication are based on the responses of a small number of paramedics (n = 44) with a skew toward those with more experience and male gender. Future research should repeat these focus groups with a greater number of paramedics from varying degrees of experience and hierarchy within ambulance services and from different genders. It will also be of interest to replicate this research study in the future once paramedics are included in the NRAS and Australian paramedics become registered health care professionals with an associated prehospital code of ethics. Further research may also expand on the discussion of duty to respond from an ethical context and focus also on the moral and legal aspects that influence this concept.

CONCLUSION

How will paramedics respond when a disaster strikes that involves personal risk? The ethical backbone of any health care profession is a duty to treat—to put the needs of patients first. However, this may be tested when paramedics need to weigh multiple factors when determining whether to fulfill their professional obligations or to step back, thus avoiding potential risks. Professional medical associations and codes of ethics can play an important role in helping to articulate the fundamental professional responsibilities of HCWs. However, as highlighted in this paper, paramedics are not currently registered health care professionals and as such are not governed by codes of ethics. Educators can provide paramedic students with an understanding and appreciation of these fundamental responsibilities by focusing attention on both the medical and ethical challenges and consequences involved with disaster response. To help experienced paramedics make these choices, we need to ensure that ambulance services provide their employees with the best current information about risks, aiding paramedics to make defensible decisions in difficult circumstances. Ultimately, paramedic decisions around professional obligations will largely depend on their individual risk assessment, perception of risk, and their value systems. Coming to an understanding of the legal issues involved and the ethical–social expectations in advance of a disaster may assist paramedics to respond willingly and appropriately.

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