Ethical Dilemmas, Moral Distress, and the Risk of Moral Injury: Experiences of Residents and Fellows During the COVID-19 Pandemic in the United States

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Abstract

The ongoing COVID-19 pandemic has brought numerous ethical dilemmas to the forefront of clinical care, including for resident and fellow physician trainees. In this paper, the authors draw on their own experiences providing frontline COVID-19 clinical care in New York City in their respective roles as an internal medicine resident and later a pulmonary and critical care fellow, and as an associate program director for a pulmonary and critical care fellowship, along with published literature on trainees’ experiences in the pandemic, to describe common ethical dilemmas confronted by residents and fellows during the pandemic. These dilemmas are related to personal health risk, resource allocation, health care inequities, and media relations. The authors use a framework of microethics to underscore how these dilemmas are highly contextualized within trainees’ institutions, their specific roles, and the patient populations to which they provide care. They argue that frequent ethical dilemmas, compounded by the intense physical and emotional stress of medical training and the pandemic itself, increase the potential for trainees to experience moral distress. Recurrent moral distress may, in turn, put trainees at risk for moral injury with consequences for their mental health and overall well-being. It is imperative to gain a clear understanding of this issue, not only for those trainees who have experienced or are at risk for experiencing personal consequences but also because it may help identify ways to better support the well-being of providers and the care of patients going forward.

In the first year alone of the COVID-19 pandemic, more than half a million Americans died of the disease. Throughout the ongoing pandemic, resident and fellow physicians have been at the forefront of providing clinical care to patients with COVID-19. Like all physicians working in this crisis, they have faced—and are continuing to face—ethical dilemmas and challenges to their mental health. Many of these challenges have been shaped, and in certain cases exaggerated by, the unique vulnerabilities attendant to medical training, including the hierarchical structure, lack of autonomy, and relatively low pay for trainees.

In this paper, we provide an overview of the ethical challenges faced by residents and fellows during the COVID-19 pandemic and highlight potential consequences of those challenges, particularly the risk for moral distress and moral injury. Given that the pandemic is ongoing, the full extent of these challenges and their consequences cannot be known at this time. From our own personal experiences on the frontlines of the pandemic in New York City, however, we know the challenges are great. When the pandemic began, one of us (C.M.F.) was a third-year resident physician in internal medicine. In July 2020, C.M.F. became a fellow in pulmonary and critical care medicine. The other (B.J.H.) is a pulmonary and critical care attending physician, associate program director for a pulmonary and critical care fellowship, and leader of debriefing sessions for residents rotating in the medical intensive care unit (ICU). Since the earliest days of the pandemic, both of us have been working on the frontlines in academic medical centers in New York City, the first major epicenter of the pandemic in the United States.

In this paper, we draw from our personal experiences, early research studies into the experiences of resident and fellow trainees, and published first-hand accounts to highlight ethical challenges that emerged during the pandemic and have indelibly shaped the experiences of medical trainees.

Introduction: Ethical Challenges

Since the beginning of the COVID-19 pandemic, ethical dilemmas for medicine and public health policy have been at the forefront of public, political, and medical discourse. As with all ethical dilemmas, moral goods have been at odds with each other. For physicians like us on the frontlines, these ethical questions took on a previously unimaginable urgency.

The most visible ethical dilemmas have been the distribution of limited resources—including ventilators, personal protective equipment (PPE), and experimental therapies—and weighing the liberties and interests of individuals against the health of the greater public, such as decisions to restrict religious gatherings or require masking and vaccination. Though scientific data can and should help guide decision making, ultimately, the linchpin of each of these dilemmas is the weighing of values.

Microethics

Residents and fellows, with few if any exceptions, do not have decision-making authority around macro-level ethical issues, such as hospital policy or government mandates. As trainees, residents and fellows are typically not involved in discussions around how many ventilators a hospital system will acquire, whether indoor gatherings will be permitted, or whether a particular experimental therapy will be made available to patients. However, during
the pandemic, residents and fellows have frequently faced ethical dilemmas in their clinical care that are a small-scale reflection of those macroethics issues.

To analogize to war (admittedly a fraught analogy, but one that has often been invoked during the pandemic), residents and fellows are frontline soldiers. The generals have determined the overall strategy of their mission, but on the battlefield, the soldiers must make their own decisions under highly stressful conditions. While policymakers typically (or at least ideally) take time to collect necessary information to formulate a coherent strategy based on explicit guiding principles, on the frontlines, dilemmas often arise unexpectedly. Decisions must be made quickly, usually in the context of an individual patient’s care. The decisions are highly contextualized within interpersonal interactions between team members, patients, patients’ loved ones, and the peculiarities of a given health care institution. Decision makers in these situations are less likely to explicitly engage in discussion of ethical principles like autonomy, beneficence, nonmaleficence, and justice, though these values are often at play just below the surface.

Borrowing from Truog and colleagues, we refer to these contextualized, relational ethical dilemmas as microethics. They write in The Hastings Center Report, “We might characterize the traditional approach [principle-based reasoning] as ‘the view from the outside’ and the microethical approach as ‘the view from the inside.’ The view from the outside has the advantage of being accessible through theoretical analysis, generalizable, and consistent across cases. The view from the inside, the microethical view, is unique to each situation, arises spontaneously at a particular moment in time, and is created in the relational space between the participants.”

A central challenge of responding to microethical issues is recognizing their existence at all. Below, we explore examples of difficult decisions—related to personal health risk, resource allocation, health inequities, systemic racism, and media relations—faced by residents and fellows during the COVID-19 pandemic and highlight the fundamental ethical dilemmas that underlie them.

**Personal health risk**

When the pandemic began, frontline health care workers were deeply concerned about contracting the virus and becoming ill. Initially, we had limited information about the spread of the virus or the likelihood of serious illness or death resulting from infection. Vaccines had not yet been developed. In an international survey of resident and fellow experiences with COVID-19 in March and April of 2020, 48% of respondents were either moderately or extremely concerned about contracting COVID-19 while at work or fulfilling requirements of their training program, and 56% were moderately or extremely concerned about spreading COVID-19 to friends or family outside of the hospital. The more patients with COVID-19 the trainees cared for, the greater these concerns.

These concerns have likely evolved during the pandemic as we have learned more about the effectiveness of PPE in health care settings, vaccination has become widely available in the United States, and the delta variant has emerged. In caring for patients with COVID-19 amidst the uncertain risk to their personal health, residents and fellows have had to weigh their sense of duty to patients and desire for clinical experience against the risk of contracting the virus or spreading it to friends or family.

The contours of this ethical dilemma vary widely among trainees and are shaped by numerous factors, including: the trainee’s field of specialization, the trainee’s stage of training (i.e., first-year resident vs senior fellow), the state of the pandemic at a given time in a given place, the trainee’s personal health status, the health status of those in the trainee’s household, formal accommodations set in place by the training program, and the culture of the training environment. Whether residencies or fellowships require residents and fellows to see patients with COVID-19 likely varies widely between programs, specialties, and the severity of the pandemic in the geographic area of the program at a given point in time.

In certain fields, such as emergency medicine or pulmonary and critical care, it may be impossible to participate in clinical care without caring for patients with COVID-19. In other fields, it may be possible to see patients with COVID-19 only on a voluntary basis. In surge conditions, trainees from a wide range of fields have been asked to volunteer in medical and intensive care services. In some cases, this option was truly voluntary; however, we heard anecdotally from some trainees that they felt pressured by their leadership to volunteer. Further research is needed to understand trainees’ decisions with redeployment in this crisis.

Before widespread vaccination, the ethical dilemma surrounding personal health risk was faced perhaps most acutely by those trainees whose personal health status put them at increased risk for severe illness should they become infected with COVID-19. Especially when data on COVID-19 outcomes were still sparse, there was significant uncertainty about who was at highest risk for poor outcomes. It was assumed that pregnancy, respiratory diseases, and immunosuppression would increase risk. Because of these concerns, early in the pandemic, C.M.F.’s residency program gave pregnant trainees the option to have remote responsibilities, such as televisits, to minimize exposure to the virus. (And, in both institutions where we have worked, older faculty were assigned to remote work given that advanced age is a significant risk factor for mortality.)

Dr. Cynthia Tsai, a resident physician in internal medicine who has asthma, wrote about her experience with this ethical dilemma in JAMA. Before COVID-19, she experienced multiple asthma exacerbations a year, including 1 severe exacerbation precipitated by influenza infection that required hospitalization and noninvasive mechanical ventilation. She feared that if she became infected with COVID-19, she would be at high risk for severe illness. In March 2020, she discussed her concerns with her own physician and her program director and decided to transition off inpatient medical services to primary care televisits. Logistical and cultural features of her program allowed her the flexibility to make the decision that felt personally best for her. Even with this support though, the decision was not easy for her. “These external validations nonetheless cannot suppress my internal struggle,” she wrote. “I wonder if I am shirking obligation.” As Dr. Tsai’s personal example helps illustrate, trainees’ decisions will be shaped not only by their personal
weighing of risk but also by the culture of specific practices of their program.

Furthermore, even if a trainee is already seeing patients with COVID-19, there are still microethical dilemmas related to personal risk. For example, trainees make numerous decisions each day about how much time to spend directly at bedside with patients. Every time a trainee decides whether to enter the hospital room of a patient with COVID-19, they must weigh the value of the visit to the patient's care and their own clinical training against the use of potentially limited PPE (which we examine below) and the risk to their personal health. This calculus is unique for trainees because their clinical assessments need to be confirmed by the attending physician anyway, as part of requirements set by the Accreditation Council for Graduate Medical Education. That is, redundancy is built into training programs to ensure trainees have ample opportunity to learn and for their clinical competencies to be evaluated.

However, trainees are concerned for not only their own health but also the adequacy of their clinical training. For example, trainees in fields such as anesthesia, emergency medicine, and critical care need to develop proficiency in intubation through supervised repetitions and often are eager for opportunities to hone this skill. However, early in the pandemic, it was recommended that the most experienced providers perform intubations given the risk of viral particle spread with aerosolizing procedures. Trainees may have felt they had to weigh not just personal risk but also developing clinical competency against personal risk.

Trainees have described how these constant dilemmas shaped their experience caring for patients with COVID-19. In a survey of trainees at the University of Washington in Seattle, an early epicenter of the pandemic in the United States, one internal medicine resident said of their experience, “[I am] going in patient rooms less due to [potential for] exposure; [am] not wanting to touch patients as much.” In a personal narrative published in New England Journal of Medicine, resident physician Dr. Anna DeForest wrote to an anonymous patient with COVID-19 she had cared for, “No one would ever want to be what you are now: a hazard, a threat, a frightening object on the edge of death. We construct our plans for saving you around staying as far away from you as possible.”

Resource allocation

While residents and fellows are unlikely to have a direct role in resource allocation at the institutional policy level, they often have influence over how resources, such as PPE and ICU beds, are allocated in their direct clinical care.

Personal protective equipment. Early in the pandemic, frontline workers reported shortages of PPE. Before COVID-19, N95 masks were strictly single use. For example, when caring for patients with tuberculosis, it was considered unsafe and unprofessional to reuse N95 masks between patients. Institutional policies specifically forbade such practices. When the COVID-19 pandemic began, however, institutional policies and practices quickly changed. Trainees and other clinicians used N95s for days or even weeks at a time, storing them in paper bags in between use. Practices around PPE use were so different from prepandemic standards that some trainees wondered whether these policy changes were driven by scientific evidence or PPE shortages. While hospital administration frequently reassured trainees that PPE was adequate, the fear of running out of PPE often created the perception of scarcity.

Residents’ and fellows’ experiences of PPE scarcity and shortages led to rationing early in the pandemic. To limit use of PPE (and to limit exposure to infected patients), residents and fellows decided, in some circumstances, against seeing patients at the bedside. Residents’ and fellows’ decisions not to see patients with COVID-19 in certain circumstances were shaped by their unique role on the health care team. In C.M.F’s experience as a resident at the start of the COVID-19 pandemic, teams often arranged that only the attending would physically see the patient unless there was an urgent issue. However, this has implications for both clinical care (less direct contact between patients and the physician team) and medical training (less direct patient care for trainees).

ICU beds. While residents and fellows typically do not have the final say in determining which patients receive an ICU bed, they may have influence in these decisions. For example, at the institution where we now practice, residents can place a critical care consult for a patient on a general medicine service, which triggers an evaluation for potential upgrade to ICU-level care. Throughout the pandemic, many patients with COVID-19 pneumonia have remained on general medicine services despite hypoxic respiratory failure requiring high-flow nasal cannula. Prepandemic, patients requiring high-flow nasal cannula typically were moved to an ICU bed. Residents’ decisions to place a critical care consult are primarily guided by clinical status. However, other factors may implicitly play a role. For example, well-resourced patients and their families may ask for upgrade to an ICU, while those lacking health literacy or social capital may not. And, while patient or family member request is not in itself reason enough to place a consult, it may implicitly influence the decision.

While, officially, medical institutions report that ICU bed capacity is adequate, in our experience, residents and fellows often comment that the clinical threshold for upgrade to ICU has been higher in the era of COVID-19. While institutions may state that adequate ICU beds and staffing are available, on the ground, residents’ and fellows’ perceptions may be different. Whether or not their perception of scarcity is in line with the institution’s position, we would argue that even the perception of scarcity can lead to moral distress (which we define later in this paper).

Health inequities and systemic racism

In the United States, Black, Latinx, and Indigenous people have died of COVID-19 at roughly twice the rate of their White counterparts. It is widely recognized by experts in the social determinants of health that these disparities are the result of structural racism. In handling resource allocation issues, ethical challenges related to health inequities and systemic racism are likely to arise. Many training programs include multiple hospitals, so trainees may rotate between private hospitals with predominantly privately insured patients, who are more likely to be White, and safety-net...
hospitals with predominantly Medicaid or uninsured patients, who are more likely to be Black or Latinx. The realities of clinical care may vary significantly based on availability of resources at hospitals. Trainees may struggle to provide ethical care rooted in the principle of justice while working in this unequal system and may, as a result, experience moral distress.

In the time since the pandemic began, attention has been increasingly turned to the destructive forces of racism and White supremacy in American society, including in health care and academic medicine. With the dual challenges of COVID-19 and racism harming their patients and for many their own families and communities, many residents and fellows have felt compelled to protest these injustices. Resident physician Dr. Nze and colleagues wrote in STAT, “We are physicians when we are at work in the hospital, but we are always Black men. We don’t live in our white coats—we live in our Black skin. For those like us who experience these tragedies as terrifying, the silence of the medical community is deafening.... We often look to our superiors, departments, or professional societies to stand up for us, to highlight the injustice, to acknowledge our pain. Time and time again we are disappointed.” In the spring and summer, many trainees participated in #WhiteCoatsforBlackLives demonstrations. These trainees were already dealing with the stress of the pandemic. However, many felt a moral obligation to use their privilege and position as physicians to take an ethical stance and speak out against injustice.

Media relations
During the pandemic, residents and fellows have had frontline exposure to a public health crisis that has shaped nearly every facet of society. As such, their viewpoints are valuable to and sought after by journalists. Among trainees, there was a common perception, especially early in the pandemic, that official statements by institutions were discordant with frontline experiences. As a result, some trainees felt a duty to the public to speak to journalists as a means of improving the accuracy of reporting on the pandemic. However, this sense of duty to inform the public conflicted with institutional policies regarding speaking to the press. At some institutions, employees, including trainees, received email warnings against speaking to the press, including the threat of job termination if this policy was violated.

There are many challenges to navigate in speaking to the media. Institutional leadership strives to provide accurate information to the public and also has a vested interest upholding their public image and ensuring that the public feels safe seeking health care at their institution. Further, individual employees are rarely privy to the bigger picture of the organization and may make incorrect assumptions based on their personal experiences. Some trainees who have spoken publicly during the pandemic may have been motivated to share information on social media or engage with the press more for personal gain and recognition than a true desire to help the public. Conversely, some journalists, who may have been seeking sensational stories for their own personal gain, may have drawn trainees into unwittingly providing media accounts that have harmed public understanding and trust in health care institutions.

The pandemic has been a time of high stress and heightened public focus on health care workers and institutions, and many trainees have felt a duty to inform the public about the pandemic at the same time as hospital leaders likely have felt an increased pressure to offer a positive and reassuring narrative about conditions at their institutions. As such, some residents and fellows have experienced an increased tension between their duty to the public and their duty to their institutions. Trainees approached by the press have needed to weigh these competing concerns, often with limited guidance.

Moral Distress and Moral Injury
Moral distress was first described in the nursing literature in 1984 by Andrew Jameton, who wrote: “Moral distress arises when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action.” Moral injury was first described in combat soldiers and results from “perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations.” Moral injury can be associated with long-term emotional and psychological suffering.

The concepts of moral distress and moral injury are not restricted to nurses or veterans, and their definitions and applications are widely discussed in relation to physicians as well. Some view moral injury as the resultant harm from recurrent, unresolved moral distress.

In 2018, Simon G. Talbot and Wendy Dean argued that moral injury is increasingly common among physicians and that it is often mischaracterized as “burnout.” They wrote, “the moral injury of health care is not the offense of killing another human in the context of war. It is being unable to provide high-quality care and healing in the context of health care.” During the pandemic, in a situation of profound uncertainty, fear, and at times chaos, it has been nearly impossible for health care workers to feel they are providing care that meets the standards to which they were trained. Just by virtue of an unknown disease and restrictions on hospital visitors, we have already strayed from our usual experience. In their call for a national strategy to protect clinicians’ well-being during and after the pandemic, Dzau and colleagues highlight the significant challenges of moral distress and moral injury, particularly for trainees.

Trainees have been under intense physical and emotional stress during the pandemic. Sources of stress are wide ranging, including risk of contracting the virus, long hours at work, social isolation resulting from social distancing guidelines, witnessing high numbers of patient deaths, coping with uncertainty, and separation from family.

Ethical dilemmas are among the many stresses that have weighed on trainees. In a study of trainees’ experiences with COVID-19 from the University of
Washington, an emergency medicine resident shared the stress of ventilator scarcity: “Considering the cost of intubating a sick elderly patient with multiple comorbidities who may use a ventilator for weeks while they are in dwindling supply.” A pulmonary critical care fellow struggled with balance between public health and what might be best for individual patients. The fellow explained, “Lack of visitors, especially the limited number for patients who are dying…. This has put us in the place of looking toward public health goals more so than our own individual patients.”

In B.J.H.’s experience debriefing trainees after their ICU rotations, he was struck by the profound guilt some trainees felt that they could not do more for their patients with COVID-19. For example, one trainee expressed feelings of guilt for not being able to help attending physicians with some of the physical care of patients (an arrangement made to protect trainees from exposure). In turn, some attendings expressed feelings of guilt that the trainees were then tasked with the heavy emotional task of providing daily updates to patients’ families. Both wish they could have helped more; their guilt was a heavy emotional burden.

These numerous stressors have taken a psychological toll on residents and fellows. In the University of Washington study, one internal medicine resident explained, “It’s a constant dialogue of ‘Am I safe? Is my patient safe? Is this care adequate? Am I doing all I can?’ All of this takes a serious toll on the psyche of many residents and fellows. One internal medicine resident at Washington University School of Medicine in Saint Louis found that trainees who were exposed to patients being tested for COVID-19 reported higher stress scores and were more likely to suffer burnout. In the international survey of residents and fellows cited previously, trainees who cared for higher numbers of patients with COVID-19 were more likely to screen positive for burnout, with 39% screening positive among trainees with no exposure to patients with COVID-19 and 65% screening positive among those who cared for 31 or more patients with COVID-19. Further studies are needed to better characterize the impact of COVID-19 on trainee well-being, in particular moral distress and moral injury.

Data are beginning to emerge on the psychological toll experienced by residents and fellows earlier in the pandemic. A survey of residents and fellows at Washington University School of Medicine in Saint Louis found that trainees who were exposed to patients being tested for COVID-19 reported higher stress scores and were more likely to suffer burnout. In the international survey of residents and fellows cited previously, trainees who cared for higher numbers of patients with COVID-19 were more likely to screen positive for burnout, with 39% screening positive among trainees with no exposure to patients with COVID-19 and 65% screening positive among those who cared for 31 or more patients with COVID-19. Further studies are needed to better characterize the impact of COVID-19 on trainee well-being, in particular moral distress and moral injury.

Conclusion

In this paper, we have provided an overview of ethical challenges faced by residents and fellows in the COVID-19 pandemic and suggested that these frequent dilemmas exposed residents to experiences of moral distress and the possibility of moral injury. In such a life-altering, global event, it is impossible to fully capture such vast challenges. What we can say is that, even though trainees are not tasked with making ethical decisions at the macro level, in their day-to-day work in the pandemic, they have confronted numerous ethical challenges relating to their own risk of becoming ill from patient exposure, rationing of limited resources, confronting systemic racism and health care inequities, and deciding when and how to speak publicly—to reporters or via social media—about their concerns. Trainees have cared for patients in previously unimaginable clinical situations. They have witnessed frequent death and profound suffering. And at the end of exhausting days, they have gone home to a life of social distance and social isolation. For many, their work weighs heavily on their minds and consciences.

We anticipate that, going forward, the toll of these challenges on the mental health and well-being of trainees will be significant. Some distress may not be experienced until months after an acutely stressful situation. For these reasons, it is vital for investigators to study the impact of COVID-19 on trainees and for health care institutions and graduate medical training programs to provide them with support. To prepare for ongoing waves of this pandemic as well as future public health crises, we need to understand the ethical landscape our trainees are navigating and identify effective mechanisms to recognize and mitigate moral distress and moral injury.

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