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Moral Stress and Moral Distress: Confronting Challenges in Healthcare Systems Under Pressure

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Abstract

Stresses on healthcare systems and moral distress among clinicians are urgent, intertwined bioethical problems in contemporary healthcare. Yet conceptualizations of moral distress in bioethical inquiry often overlook a range of routine threats to professional integrity in healthcare work. Using examples from our research on frontline physicians working during the COVID-19 pandemic, this article clarifies conceptual distinctions between *moral distress*, *moral injury*, and *moral stress* and illustrates how these concepts operate together in healthcare work. Drawing from the philosophy of healthcare, we explain how moral stress results from the normal operations of overstressed systems; unlike moral distress and moral injury, it may not involve a sense of powerlessness concerning patient care. The analysis of moral stress directs attention beyond the individual, to stress-generating systemic factors. We conclude by reflecting on how and why this conceptual clarity matters for improving clinicians' professional wellbeing, and offer preliminary pathways for intervention.

Keywords

moral distress; moral stress; professional integrity; professional wellbeing; agency; COVID-19

Health systems around the globe and the clinicians staffing them have been under enormous stress since the onset of COVID-19. At the same time, public and scholarly attention to moral distress and moral injury in healthcare have grown rapidly (Daubman et al. 2020; Morley et al. 2020; The Moral Burden of Pandemic Decision-Making 2020; Donkers et al. 2021; French et al. 2021; Giwa et al. 2021; Godshall 2021; Hines et al. 2021; Kreh et al. 2021; Lake et al. 2021; Meese et al. 2021; Norman et al. 2021; Rafiquddin 2021; Sheppard et al. 2021; Silverman et al. 2021; Guttormson et al. 2022; Sonis et al. 2022). The stress on healthcare systems and the experience of moral distress among clinicians are urgent, intertwined bioethical problems in our contemporary healthcare landscape. We perceive

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two challenges for work on moral distress and the related experience of moral injury, which we define further below, within and beyond bioethics. First, these terms are applied imprecisely across different authors and contexts, at times making it difficult to differentiate between them. Second, centering moral distress and moral injury tends to put the focus on emergent situations, often pertaining to dilemmas in patient care, in which clinicians perceive themselves as powerless in the face of stressors. Doing so overlooks more routine threats to professional integrity in healthcare work that profoundly shape experiences of working in stressed clinical environments.

In this article, we consider moral challenges in clinical care that arise from the conditions of the contemporary healthcare work environment, in particular, the hospital. We draw on scholarship by applied philosopher Alan Cribb to advance the concept of "moral stress" and show how it is different from both moral distress and moral injury. For Cribb (2011), moral stress is pervasive and chronic in healthcare; it is a product of working in systems that are routinely both stressed and stress-producing. Cribb's concept of moral stress, generated by observations of the consequences of austerity financing for National Health Service (NHS) workers in the UK, provides a vocabulary for framing systems-generated stressors as they present in other healthcare systems. This concept predates and complements recent appreciation among US-based scholars for structural sources of moral distress and the necessity of systems-oriented solutions (Carse and Rushton 2017; Rushton 2018b; Morley et al. 2021b; Sukhera et al. 2021).

We believe that moral stress is a useful complement to the better-known concept of moral distress for several reasons. First, as we describe further below, most accounts of moral distress suggest that it emerges in situations in which healthcare workers perceive themselves to be powerless to act on a moral intuition about the right course of clinical action. Moral stress, in contrast, is not necessarily accompanied by a strong perception of powerlessness. Cribb (2011) differentiates between moral stress as a foreseeable product of an overstressed system and the periodic emergence of moral distress within that system. Second, most definitions of moral distress suggest that it originates with discrete clinical encounters. Moral stress, however, is not limited to direct patient care or exceptional situations; it results from the normal operations of an overstressed system. Finally, moral distress refers to negative feelings (e.g., distress, blame, shame) experienced by individual clinicians. Moral stress may be accompanied by such feelings, but it directs attention beyond the individual, to the systems that generate stressors.

Given this definition, what makes such stress moral, and why does it matter to bioethics? Cribb (2011) proposed that stress in healthcare work is fundamentally moral because of its relationship to human suffering. Physicians and other healthcare workers have a professional responsibility to provide good care and alleviate patients' suffering; this duty is specifically moral in nature—that is, it compels one to 'do the right thing' for one's patients, even when the 'right thing' is contested or uncertain. Systems constraints that prevent healthcare workers from providing care consistent with clinical standards and patients' values and preferences compromise professional integrity, and in doing so, contribute to moral stress. Here, we understand professional integrity in medicine to encompass the moral dimensions of "soundness, reliability, wholeness, and integration of moral character" (Beauchamp and

Childress 2019, p.41) alongside adherence to professional standards of work. Thus, while systems constraints such as treatment delays or inadequate COVID-19 testing infrastructure may result in various kinds of stress, they can also be experienced by physicians as *moral* stress insofar as they interfere with the alleviation of suffering and providing what one perceives as good care for one's patients. Importantly, these systems constraints have an impact on patient care writ large, yet they do not necessarily result in dilemmas for the care of individual patients.

In what follows, we suggest that making the concepts of moral distress and moral injury do all the work of accounting for clinician experiences and emotions produced by systems under stress overlooks significant moral challenges shaping contemporary healthcare environments. To distinguish between situations in which clinicians perceive themselves to be powerless to act with integrity, on the one hand, and systemic sources of stress that grind away at professional integrity, on the other, we use the concept of moral stress, which has received much less attention in the bioethics literature. We begin by reviewing foundational work on moral distress and moral injury in bioethics, highlighting points of tension and ambiguity. We then introduce Cribb's account of moral stress and identify key differences between moral stress and other dominant concepts. To illustrate these concepts and differentiate between them, we use examples from our research on the Study to Examine Physicians' Pandemic Stress (STEPPS), a qualitative study of 145 frontline physicians in New York City, New Orleans, Los Angeles, and Miami working during COVID-19. Finally, we conclude by reflecting on how and why this conceptual clarity matters for improving clinicians' professional wellbeing in the post-COVID era, and offer preliminary thoughts on pathways for intervention.

Conceptual foundations: moral distress and moral injury

While media coverage of the COVID-19 pandemic has blurred the boundaries between moral distress and moral injury (Suskind 2020; Gerbis 2022; Svoboda 2022), the concepts are associated with distinct intellectual geneaologies and disciplinary histories. Bioethical scholarship on *moral distress* relies on foundational work by the late philosopher Andrew Jameton (1984), who described moral distress as arising from specific, episodic situations in which clinicians perceive that they know the right thing to do to avoid harm, and also perceive themselves to be prevented from taking action to do good or prevent harm. (See Table 1.) The perceived inability to perform the morally right action during these situations results in a sense of powerlessness from fulfilling one's professional responsibilities. Jameton's original work was with nurses; the concept has since been applied to other clinical professions (Brazil et al. 2010; Dzeng et al. 2015; Bernhardt et al. 2020; Bergren 2021; Drewett et al. 2021; Hlubocky et al. 2021). Importantly, feelings of powerlessness will depend on one's position within the healthcare hierarchy (St Ledger et al. 2021). The frequency and intensity of moral distress varies widely across clinical disciplines and specialties, with particularly high prevalence in high-intensity settings such as critical care, oncology, and neonatology, and among nurses (Carse and Rushton 2018).

For Jameton, constrained moral judgment is a necessary and sufficient condition for moral distress. Since his foundational work, scholars have either accepted this definition or

challenged its necessity or sufficiency (Morley et al. 2019). With respect to the sufficiency criterion, Jameton's definition does not require an affective or psychological dimension of moral distress, which has featured centrally in many subsequent accounts (Carse 2013; Fourie 2015; Campbell et al. 2016; Weber 2016; Carse and Rushton 2017; Morley et al. 2021b). For these scholars, moral distress is constituted by an emotional response to a morally challenging professional situation. Raines (2000) characterizes a related concept, *ethics stress*, as an outgrowth of Jameton's concept of moral distress. Ethics stress, defined as the emotional, physical, and psychosocial *consequences* of moral distress, may include feelings of frustration, dissatisfaction, and contemplating leaving the profession (Ulrich et al. 2007).

With respect to the necessity condition, some scholars have questioned whether moral distress requires moral certainty regarding an imperiled course of clearly desired action, as Jameton's definition supposes. Some have conceptualized moral distress more broadly, to encompass anguish or anxiety tied to a sense of threatened integrity in one's work (Carse and Rushton 2018). The concept of *moral residue* suggests that feelings of moral distress may linger after the initial inciting event of constrained moral judgment, resulting in a chronic condition (Epstein and Hamric 2009). Campbell and colleagues (2016) proposed a broader conceptualization of moral distress that accommodates relatively inchoate forms, including situations in which an individual does not know the morally correct action (moral uncertainty), there may not be a morally correct action (moral dilemma), or the individual is not directly implicated in the action (distress by association) (see also Fourie 2015 and Morley et al. 2021). However, others maintain that this would dilute the concept of moral distress too much (Nyholm 2016; Weber 2016), making it "so broad that it is diagnostically meaningless" (Wocial 2016:21).

There is not clear agreement regarding possibilities and pathways for moral repair in the face of moral distress, either. Carse and Rushton (2018) argue that moral distress may serve as a signal of moral conscientiousness, insofar as it affirms one's moral commitments and attunement to moral concerns. They further suggest that clinicians may mitigate moral distress by exercising moral resilience. However, Epstein and Hurst (2017) maintain that being morally distressed is not necessary for moral awareness, and worry that presenting moral resilience as the antidote to moral distress puts the onus on clinicians to heal themselves of broken systems.

Moral injury was first used in the context of war to describe lasting damage to one's sense of self or identity as a result of a moral transgression incurred in the line of duty (Shay 1995). Talbot and Dean (2018) later applied the concept to healthcare as an alternative to burnout, insofar as the term shifts attention from symptoms (i.e., burnout) to etiology (i.e., broken systems). Moral injury is a lasting psychological injury resulting from being forced to violate one's conscience while fulfilling one's professional duties (Dean et al. 2020b). It may result from the accumulation of multiple episodes of moral distress, or a single event (Dean et al. 2020a). While interest in moral injury has surged during the COVID-19 pandemic (Roycroft et al. 2020; Akram 2021; Hossain and Clatty 2021; Mantri et al. 2021; Nieuwsma et al. 2022; Rosen et al. 2022), there has been relatively little empirical research

on moral injury in healthcare workers (Borges et al. 2020, but see Song et al. 2021; Rushton et al. 2021; Rushton et al. 2022).

Many definitions of moral injury have substantial overlap with moral distress. For example, Song and colleagues (2021:2) suggest that "moral injury manifests as a double bind" in which healthcare workers are torn between taking care of their patients or responding to institutional imperatives driven by the business interests of medicine. Čartolovni et al. (2021) observe that Talbot and Dean's (2018) definition of moral injury is remarkably similar to dominant understandings of moral distress as distress that is caused by perceiving oneself as unable to perform the desired action because of constraints that lie beyond one's control. They further maintain that this overlap produces confusion. (We concur.)

At the same time, Čartolovni et al. (2021:597) note important differences between the two concepts: moral injury creates a "deep emotional wound," whereas moral distress results in situational "psychological disequilibrium and negative feeling states" (e.g., blame, shame, distress) that may not be as long-lasting. Furthermore, moral injury describes a lasting change that profoundly alters one's sense of hope, trust, and integrity. Finally, moral injury specifically locates the cause of such injuries in a broken system that is under siege, resulting in serious moral harm. Rushton (2018a. p. 66) explains the difference between moral distress and moral injury as follows: "In contrast to episodes of moral distress and moral outrage, the threat to integrity becomes an actual violation that erodes our moral core."

Given these features of moral injury, we believe that it may still be too soon to determine whether frontline physicians working during COVID-19 have experienced moral injury. In our view, moral injury describes an extreme response to crisis (war-like) conditions that prevents one from functioning normally with deep, lasting consequences, and likely applies to only a small proportion of healthcare workers experiencing threats to professional integrity, although more research is warranted once the pandemic subsides.

Moral stress as a complement to distress and injury

Neither moral distress nor moral injury fully capture the potential breadth of responses to routine stress in complex health systems, by which we mean the everyday strains on delivery of care, as opposed to crisis events. To better represent this range, we turn now to Alan Cribb, whose work is situated in the philosophy of healthcare, informing applied contexts such as quality improvement and empirical bioethics (Ives et al. 2017; Cribb et al. 2020). Cribb's (2011) conceptual work on moral stress in healthcare begins from the assumption that healthcare work is inherently stressful due to the intrinsic properties of complex systems like healthcare. These simultaneously occurring properties include (1) the potential for harm, (2) the need to continuously adapt to changing and emerging conditions at all levels, and (3) the resilience that enables a system to run when battered, even "broken," yet also recover from shocks (Berlinger 2016: 28–32). He further specifies that healthcare work has a "routine moral stress," which he also describes as "moral burden," because of the implicit idea that something "good is going on" in this type of work (Cribb 2011:122). Not being able to do well for one's patients amid the bureaucratic grind of the system creates mundane, repeated threats to professional integrity and generates moral stress. For example, Cribb and

colleagues describe how performing healthcare work under austerity conditions in the U.K. poses challenges for professional ethics due to shortages in material and human resources, diminishing budgets for public health services, increasing and more complex workloads, and increasing expectations for personal accountability as professional autonomy is eroded (Owens, Singh, and Cribb 2019).

Cribb views moral stress experienced by healthcare workers as an inevitable product of the overstressed systems in which they work. It is deeply embedded, and thus routine, in healthcare work. It is not the event suggested by "distress," nor is it experienced as an acute or prolonged "injury." Rather, the metaphor of "stress" conveys pressure or tension, both on the system *and* on the workers themselves. This dual sense of stress—the feeling of stress associated with doing one's job, produced by work conditions under continuous pressure—is a useful feature of the concept of moral stress. It captures what healthcare work is like, whether under "normal" or crisis conditions.

Cribb is careful to distinguish moral stress from moral distress. Much of moral stress is "not overtly distressing" nor "tied in with felt crises about whether or not to fulfil one's official duties" (Cribb 2011:124). In later, co-authored work, Cribb and colleagues note: "Moral stress is not to be equated with the emotional suffering or anguish that is normally captured by the term 'moral distress,'" (Owens et al. 2019: 166). Unlike moral distress, in which it may be easy to pin blame on specific decisionmakers or agents of authority (Dudzinski 2016), moral stress may not yield easy targets of blame, apart from blaming "the system" itself—whether this is perceived as bureaucracy, "corporate" healthcare, or an inherently unfair system of health insurance that stratifies options by ability to pay. This is because its sources often lie outside of individual clinical encounters, and patient-centered decisions. Instead, its focus is on the everyday structural aspects of healthcare that produce stress.

A final distinguishing feature of moral stress is that it is not necessarily accompanied by strong perceptions of powerlessness, as is the case for both moral distress and moral injury. (The fact that it is inevitable does not mean that nothing can or should be done to minimize it.) Because moral stress is a product of the system, however, mitigating it requires addressing the underlying workflows, processes, and structural conditions that give rise to threats to professional integrity. Importantly, responses to moral stress will not look the same for everyone. One's response depends on one's professional autonomy and position in the medical hierarchy (St Ledger et al. 2021), as well as one's skills and capacities to address the underlying issue.

Bioethical scholarship on moral stress is limited. The concept has been taken up in the nursing ethics literature by Kim Lützén and colleagues (Lützén et al. 2003; Cronqvist and Nyström 2007; Lützén et al. 2010; Lützén and Kvist 2012), but they define it similarly to moral distress, which muddles its conceptual distinctiveness. Lützén et al. (2003) characterize moral distress as a psychological phenomenon in which "the emphasis is placed on distress rather than on exploring the ethical component of distress, for example, what ethical principles were at stake in the specific events" (314). They indicate that moral stress is experienced when nurses are "aware of what ethical principles are at stake in a specific situation and external factors prevent them from making a decision that would reduce the

conflict between contradicting principles" (314). This definition is similar to Jameton's (1984) definition of moral distress. In a later article, Lützén and Kvist (1984) add that moral stress need not lead to negative results (such as distress), but may instead include positive consequences, such as preventing moral blind spots.

Rushton (2018a) proposes that responses to moral adversity lie on a continuum that begins with moral stress, a neutral state, which will eventually yield a positive or negative appraisal. Depending on this appraisal, moral stress may be released or resolved. Alternatively, moral stress can lead to moral distress, and subsequently, to moral injury, if it is not adequately diffused through internal and external processes that include moral resilience. We disagree with this continuum view because, following Cribb, we understand moral stress as analytically distinct from moral distress and moral injury. Whereas moral distress primarily originates in the setting of direct patient care under emergent conditions, moral stress does not necessarily do so: it an anticipated product of routine systems-based stress. Moreover, while there may be overlap in some of the emotional consequences of moral stress and moral distress, the concepts have distinct foci: a clinician's feelings about a challenging case, for moral distress, and the systems that generate stress for health care professionals, for moral stress. Therefore, we would say these concepts operate on different analytic planes, rather than on a continuum.

Here, we argue that Cribb's (2011) concept of moral stress adds important new dimensions to the bioethics literature not captured by dominant approaches to either moral distress or moral injury. To summarize, moral stress is pervasive, routine, deeply embedded in healthcare practice, and produced by the everyday conditions of contemporary complex healthcare systems, in which healthcare providers are expected to alleviate patient suffering. Both moral distress and moral injury result from a perceived sense of powerlessness, whereas moral stress is not (necessarily) marked by powerlessness. Finally, moral stress may not be accompanied by strong negative feelings for individual clinicians. Analytically, moral stress directs attention beyond the individual to the systems that generate moral stressors in healthcare.

The Study to Examine Physicians' Pandemic Stress

To further illustrate the distinctions between moral distress and moral stress, we turn to examples from healthcare workers practicing during the COVID-19 pandemic. We draw primarily on our work in STEPPS, an interdisciplinary study of frontline physicians' stress and occupational wellbeing while working during the pandemic. We exclude moral injury from this discussion for two reasons. First, we contend that moral injury is much rarer than either moral distress or moral stress in healthcare work because it entails lasting damage to one's sense of self or identity in extreme situations, whereas moral stress and moral distress are definitionally more transient and mundane. Second, and relatedly, because moral injury describes a lasting, profound change, we believe that longer-term outcomes data are necessary to determine the extent to which significant moral injury has occurred due to COVID-19.

Two distinct yet related studies comprise STEPPS. The first study, funded by the Greenwall Foundation, aimed to identify sources of moral stress in physicians and develop systems-

oriented recommendations for improving their professional wellbeing. Our socio-ecological conceptual model (National Academies of Medicine 2019; Buchbinder et al. 2023a; Buchbinder and Jenkins 2022) emphasizes that upstream factors such as state and federal policies, professional standards, and cultural norms influence the work systems factors that shape professional wellbeing. Primary data for the Greenwall study includes interviews conducted with physicians in New York City (NYC) and New Orleans (NOLA), cities that experienced initial peak surge conditions around the same time, in April 2020. The second study, funded by the National Institute of Occupational Safety and Health (NIOSH), focuses on occupational stress and wellbeing and aims to generate evidence-based recommendations to protect physicians' occupational health and wellbeing. For the NIOSH study, we conducted interviews with physicians in Miami and Los Angeles (LA), cities that hit initial peak surge conditions relatively later, in July 2020 and January 2021 respectively. In both studies, we interviewed physicians specializing in emergency medicine, hospital medicine, critical care pulmonology, palliative care, and other specialties redeployed to work in COVID-19 units. Across the four cities, participants worked in a total of 44 primary hospital sites from a range of types (e.g., public, community, academic) with diverse funding structures. Both studies received approval from the Institutional Review Board at the University of North Carolina at Chapel Hill. Study findings and methods, including our qualitative analytic procedures, have been reported elsewhere (Browne et al. 2022; Buchbinder et al. 2023a).

We begin by describing examples of moral distress from the STEPPS data corpus arising from resuscitation and intubation decisions, resource scarcity, and visitation policies. As these themes reflect dominant sources of moral distress in the bioethics literature and media reports, we also use relevant examples from those sources where appropriate. We then compare them to examples of moral stress arising around a different set of issues: societal inequalities and the federal response to the pandemic. Therefore, we first show how the bioethics literature typically frames moral challenges in clinical care (i.e., moral distress), and then demonstrate how moral stress can be useful as a complementary concept.

As a reminder, a key distinction we have noted between moral distress and moral stress is that moral distress originates in episodic situations, whereas moral stress is pervasive and routine. Our examples are drawn from pandemic response, which began as a crisis event, but over time became routine and chronic. Given the extraordinary conditions, some of our examples of moral stress may seem to trouble the idea of "routine" medicine. However, the pandemic also presents an unparalleled opportunity for critical analysis and reflection, given how frequently moral stressors cropped up. Many of our examples of moral stress will resonate with examples of moral stress encountered during non-pandemic times. Considering examples from our STEPPS data enables us to distinguish between the deeply embedded nature of moral stress in healthcare as well as the episodic, calamitous nature of moral distress. Through this juxtaposition, we aim to show how moral stress encompasses a broader range of threats to professional integrity than is captured by moral distress alone. By illustrating how physicians in our study responded to moral stress, we also aim to highlight clinicians' agency in confronting structural constraints that raise moral conflicts. In doing so, we hope to offer greater conceptual clarity regarding situations that raise moral challenges in clinical care and illustrate why all such situations should not be labeled moral distress.

Moral distress during COVID-19

Futile interventions.—Cardiopulmonary resuscitation under conditions of perceived futility has been a frequently-cited source of moral distress among physicians, both prior to COVID-19 (Dzeng et al. 2015; Jecker 2017; Rosenwhol-Mack et al. 2020) as well as during the pandemic (Fins and Prager 2020; St Ledger et al. 2021; Rheaume et al. 2022). These situations evoke moral distress because they begin with an episodic sressor in which physicians are constrained from doing what they perceive as the right thing to do—typically, foregoing resusiscitation and allowing the patient to die peacefully. Perspectives from STEPPS participants reflect the literature in this regard. An NYC critical care anesthesiologist who was sent to work in a COVID unit during the initial surge recounted intense emotions experienced during futile rescuscitations or "codes": "I would just feel so disgusted when we would code these people for an hour. And they're dead, but the ribs are cracked and their clothes are off and there are a million lines everywhere." This physician admitted that she felt better when patients died naturally than when they died after "huge resuscitative efforts…that left the people more of a mess than they were." This physician experienced moral distress because she felt powerless to change an outcome that she viewed as morally wrong. What is important here is not a clearly identified external constraint—such as an institutional policy regarding resuscitations for COVID-19 patients—but rather her *perception* that she was forced to continue despite her better judgment.

At the onset of the pandemic, clinical guidance from Italy supported early intubation and ventilation. Over time, however, it became increasingly clear that early intubation might not be beneficial and could instead lead to worse outcomes (Begley 2020; Hamilton 2020). This distinctive clinical feature of COVID-19 as compared to other respiratory illnesses was an important source of moral distress. An NYC physician dually trained in emergency medicine and critical care pulmonology who described himself as an early champion of delayed intubation reported engaging in heated conflict with institutional colleagues around intubation decisions. When a call came for an anesthesiology consult to place a ventilator, he would race to the patient's room and try to convince the team not to intubate. This physician was adamant in his convictions that delaying intubation resulted in better mortality outcomes. From his perspective, there was no uncertainty about the best course of action. Because theses attempts were often unsuccessful, he felt powerless to avoid bad patient outcomes. Being forced to provide what he perceived as substandard care, which he feared would result in death, resulted in moral distress.

While this example is extreme, other participants relayed similarly strong emotional responses concerning the harms of intubation and the powerlessness to intervene. One NOLA emergency medicine physician said that he "felt like I was putting a pillow over their face by intubating them, by taking their airway, putting them on a vent that they wouldn't come off of and they'd die on." This comment evokes moral distress because the participant felt compelled to participate in an episodic clinical act that he believed made him complicit in patients' deaths. It clearly felt wrong, but he felt he had no choice but to do it.

Resource scarcity.—Early media coverage of COVID-19 focused on the possibility of ventilator shortages, creating concerns about fair allocation and the potential for moral

distress (Kulish et al. 2020; Penarredonda 2020). Such concerns were ultimately largely unfounded because such shortages were documented relatively infrequently in our data. Notably, many of the examples of moral distress surrounding resource allocation reported in one qualitative study of U.S.-based clinicians describe situations of *anticipated* distress over difficult decisions that never came to pass (Butler et al. 2020). This does not fit the definition of moral distress that we use here: distress arising from a situation in which a healthcare worker knows the right thing to do but is externally constrained from doing it. It may, however, fit Campbell et al's (2016) understanding of *distress by association*: situations in which an individual is not directly and personally implicated in an action which is perceived as producing moral distress.

Only a few STEPPS participants recounted being faced with allocation decisions that led to moral distress. A critical care pulmonologist working in an NYC academic hospital recalled a case in which she was forced to decide which of two patients would get a single dialysis machine. No one wanted to make the decision, which fell to her as the attending physician. "I still feel horrible about it," she said. Without dialysis, the other patient died. She continued: "I'll never forget. I know his name. I know everything. I know what room he was in. I know everything. Because I felt like it was such a horrible decision." This participant experienced moral distress because she knew that the right thing to do was to dialyze both patients, but she was powerless to do so because of unusual, episodic resource constraints. Such extreme resource constraints forced physicians into impossible positions, making them take actions that would clearly harm patients. Fortunately, such accounts were relatively rare in the STEPPS data. Some participants described shifting from continuous to intermittent dialysis for critical care patients early in the pandemic to avoid such harrowing decisions.

Visitation policies.—Policies prohibiting or severely restricting visitors for hospitalized patients were one of the biggest sources of moral distress for hospital-based clinicians during the pandemic (Anderson-Shaw and Zar 2020; Hugelius et al. 2021; Jaswaney et al. 2022; Wendlandt et al. 2022). Tate (2021) describes the agonizing case of parents separated from their eleven-year-old son, Keaton, who was dying of leukemia because the hospital's visitation policy would only permit one of them to be at his bedside. Tate notes that the mother's suffering haunted him the week after meeting, and characterizes the case as a classic example of moral distress:

> My uncontested support of a policy that separated a dying child from his parents felt morally incongruent with the responsibilities inherent to my role as Keaton's pediatric palliative care doctor. My whole job was to help families craft good deaths out of terrible circumstances. And now, I was doing just the opposite. I was experiencing moral distress. (Tate 2021. p. 4)

Tate explains why this is a clear example of moral distress: a critical situation in which he felt powerless against a policy that violated his sense of what would be the best end-of-life care for his patient.

Tate's perspective aligns with the views of an NYC hospitalist physician from STEPPS who told us, "The hardest thing about all of this was, no one could have a good death." He elaborated:

> I'd get my phone out, and be like, 'I'm gonna call you, and we're gonna FaceTime.' And I'm in this stupid N95 with another mask over it, with a face mask, with a gown, sweating, just holding this phone, watching these people just pray and scream and cry, and not being able to do that in a way that's respectful to what I think of as a good death.

Similarly, a NOLA critical care pulmonologist reported:

> If there were intrusive thoughts and memories from the beginning of COVID that existed amongst ICU doctors and nurses, I'd say the most common one, the most common intrusive memory that does provoke strong emotional feelings of many different types, is the memory of the number of patients dying alone in an ICU [due to visitation restrictions].

Thus, restrictive visitation policies during COVID caused moral distress: episodic situations in which physicians knew the right thing to do—permit family members at the bedside of a dying patient—yet felt constrained from doing it.

At the same time, many participants also described workarounds—such as the emergency department physician who snuck families of dying patients in through an ambulance bay—that prevented moral distress from ever developing. While such workarounds and appeals for exceptions also raised concerns about fairness for some participants (see also Jaswaney et al. 2022), which could lead to additional moral distress, they highlight how the same policy could affect different clinicians differently. Physicians, who occupy the highest status in the medical hierarchy, are relatively more successful at creating workarounds or changing policy constraints. Only those who felt truly powerless against what they perceived as an unjust visitation policy experienced moral emotions (e.g., outrage) that we would characterize as moral *distress*.

Moral stress during COVID-19—Moral stress, in contrast, manifested differently in the STEPPS data and showed how routine sources of stress were deeply embedded in the complex systems of healthcare work. While all of these examples are drawn from research focused on clinical care during the COVID-19 pandemic, the issues explored (societal inequalities and inadequate government support) were routine issues prior to the pandemic and are likely to persist long after. The discussion that follows emphasizes the distinctions between moral stress and distress, but we do not mean to suggest that the concepts are strictly dichotomous. We recognize that moral distress and moral stress may overlap in some situations; like moral distress, moral stress may also involve emotional responses. Our primary objective in what follows is to provide greater conceptual clarity around these complementary concepts.

Societal inequalities.—Many STEPPS participants spoke out against the systemic social and health disparities they confronted in caring for patients with COVID-19. Societal inequalities and their corresponding racial, ethnic, and socioeconomic health

disparities produced moral stress—stress arising from not being able to care adequately for one's patients due to routine yet deeply embedded systems constraints. For example, an emergency medicine physician at a public hospital in NYC teared up in explaining, "There's no world in which the patients at my hospital did not suffer because they didn't have health insurance and they were a minority population and they were coming to a city hospital." Such injustice prompted feelings of sadness and anger resulting from the chronic conditions of systemic inequalities that, over time, eroded physicians' sense of professional integrity because they could not provide the best care for their patients. It did not pertain to a specific decision in patient care, as is typically the case for moral distress.

A distinguishing feature of moral stress as compared to moral distress is that clinicians, and particularly physicians, do not perceive themselves as powerless in the face of perceived constraints, as they do in situations of moral distress. STEPPS participants described how they sought to redress the unjust conditions that perpetuated unequal care. For example, a critical care pulmonologist who worked at an academic hospital in NYC recounted how she had noticed that all of the patients getting put on extracorporeal membrane oxygenation (ECMO) were white, while the local community patients of color were being passed over. In response, she helped to develop and implement a policy for ECMO allocation that included more transparent equity criteria. Effective responses to moral stress thus require having the agency to respond—and identifying ways to mobilize that agency.

At a different NYC hospital, physicians observed outcome disparities between patients hospitalized in the health system's flagship academic hospital and a satellite campus in another neighborhood. As one participant put it:

> It just felt like there was a certain amount of inequality and forced inequality in the system. And it wasn't clear who was benefiting, but it was clear who was not. And it was clear the patients that were going to the satellite hospitals were fucked.

In response, a colleague from the same institution reported reported speaking out to their health system leadership about disparities in resources and patient outcomes between the two hospitals.

Quite distinct from the perception of powerlessness evoked in situations of moral distress, in both of these examples we can see how physicians confronted with moral stress exercise agency in working to change unjust systems. However, these examples also reveal how 'doing the right thing' may not be as simple as refusing to follow a policy that creates moral distress, such as flouting your hospital's visitation restrictions. Instead, these examples reveal how moral stress is deeply embedded in complex systems, such that 'doing the right thing' requires changing those complex systems, which are not easily amenable to change. In the first case, a lack of clear policy guidance for ECMO allocation combined with a range of additional forces (i.e., implicit bias, overt pressure from better connected, more affluent patients) resulted in patients of color being systematically passed over for lifesaving treatment. The corrective, then, is not only developing an ECMO allocation policy—an important start, to be sure—but also working to redress the underlying systems and biases that systematically favor more privileged patients. Such change takes time, but by working

to help redress systems, clinicians can alleviate some of the moral stress they experience and preserve their professional integrity.

In the second case, the flagship hospital acquired better resources (e.g., testing infrastructure, therapeutics, human resources), resulting in systematically worse care for the patients in the satellite campus—who were, not incidentally, disproportionately patients from historically marginalized groups. Here again, speaking out to health system leadership is an important response for this physician to take to address moral stress. Yet resolving the source of injustice will require much deeper engagement to fix flawed systems. Acknowledging and effectively responding to this pervasive type of stress requires restructuring systems at various levels (e.g., individual clinicians, units, divisions, institutions, health systems).

Disparities in care, outcomes, and resource allocation produced feelings of moral stress ranging from anger to frustration to guilt—emotional responses that are also common in moral distress. An LA emergency medicine physician practicing in a community hospital said, “It’s partly anger, partly frustration, partly sadness, partly just like, this is what it is.” He continued:

> There are only certain things you have control over and to get angry or upset about things that you can’t or don’t, then it’s just a waste of what finite limited energy and emotions that you have…. But at some point, this is probably why we’re all burning out now.

Some physicians struggled with their complicity in perpetuating these disparities, such as the LA critical care pulmonologist from an academic hospital who wondered if her institution had done enough to help hospitals that were harder hit:

> I often wonder, did we do the right thing? We’re able to take good care of our patients, but should we have helped the community more? And if we had tried to help the community more, would we have actually made things better?

Such ongoing ruminations reveal the potential for longer-term moral residue as a result of systemic inequalities.

What sets these examples of moral stress apart from situations of moral distress that generate similar emotions is the kind of situations and conditions that provoke them. These examples evoke moral stress because their causes and solutions implicate deeply entrenched systems issues rather than singular episodes. Moreover, while moral distress involves feelings of powerlessness, these examples reveal a range of possible actions for mitigating moral stress. Physicians described speaking out to hospital leadership—and sometimes, the media—about unjust inequalities, advocating for more equitable allocation of healthcare resources, and developing protocols to accomplish fairer distribution of limited healthcare resources. Because moral stress is deeply embedded in health systems, and to a certain extent, unavoidable, these actions will not entirely eliminate the sources of moral stress. Importantly, however, they can help attenuate it while working to incrementally improve the system.

Inadequate federal response.—Several NYC physicians practicing in public hospitals relayed their sense of abandonment when federal agencies like the Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Agency failed to come through to support them. The believed that they provided substandard care, in part, because federal agencies had not stepped in with critical resources. One NYC palliative care physician reflected:

> You know, supposedly we live in the U.S., the greatest country in the world, the greatest health system in the world, and none of that was true. I think one of the hardest things about the pandemic in the early days was the disconnect between what was actually happening and what the federal response was. For me, there was a big sense of abandonment.

Comments from STEPPS participants highlight a profound sense of disillusionment regarding American medicine. One NYC emergency medicine physician practicing in a community hospital said that she "woke up from a dream" about "American exceptionalism." A NOLA emergency medicine physician noted "the stressors of just watching the lack of research and the lack of guidance I feel from the CDC and from…the flippant kind of attitude that I think they've had about this. That's been difficult." The poor federal response compromised physicians' professional integrity by interfering with their ability to provide the best care possible. This led to moral stress rather than moral distress because they were not tied to a single event or decision in patient care. Furthermore, the problem was not being constrained by policy or leadership decision from doing the right thing, but rather, being thwarted in a more diffuse and general sense from providing good care. Physicians routinely confront policy decisions that shape the healthcare system and healthcare practice in numerous ways.

Physicians scrambled to fill the gaps created by such an inadequate federal response. In NOLA, physicians joined forces with the state governor and public health officials to create a "bed board" mapping hospital bed availability. In NYC, an academic hospital sent a private jet to China to pick up personal protective equipment (PPE) and other essential supplies. Several physicians, particularly those working in public hospitals, spoke to the media about their working conditions during surge conditions to garner public support and resources. In so doing, they mobilized their collective agency to respond to (and mitigate) moral stress.

Discussion

Our review of moral stressors encountered by frontline physicians caring for hospitalized COVID-19 patients during the pandemic permits us to provide conceptual clarity between moral stress and the more dominant concepts of moral distress and moral injury. Moral distress and moral injury typically originate with dilemmas experienced in direct patient care, while moral stress is not limited to patient care or exceptional situations. Instead, is generated by the routine, complex (and complexly flawed) systems of healthcare work. Moral distress and moral injury are produced in situations of perceived powerlessness, whereas moral stress is not necessarily accompanied by a sense of powerlessness. Analytically, moral distress and moral injury focus on the negative feelings arising from

threats to professional integrity, whereas moral stress focuses on the flawed systems themselves.

How individual clinicians respond to moral stress, moral distress, and moral injury will be shaped by a number of factors, including one's capacities and dispositions; structural position in the medical hierarchy (e.g., professional role, status, discipline); and external resources at the local (i.e., unit or team), institutional, and system level. Rushton (2018b, p. 68) defines moral resilience as "the ability of an individual to preserve or restore integrity in response to moral adversity" and notes that it contains organizational and systemic components in addition to individual ones. Rushton further specifies that a commitment to speak up in response to violations of one's core moral values and principles is a defining feature of integrity. We see this in the examples from our data: the physician who spoke up to colleagues against the unfair ECMO allocation practices and worked to develop an equitable policy, or the multiple physicians who spoke up to health system leaders or the media about systemic inequalities. Clinicians can and do push back against systems, not only effecting structural change but also relieving moral stress in the process. We do not mean to suggest that moral resilience does not occur in situations of moral distress. Such moral resilience is an undeniable and critical component of the moral repair work that is essential following the pandemic. However, it is noteworthy that physicians in our study relayed far fewer examples of moral resilience in the face of dilemmas in patient care that we categorize as moral distress.

Why does this distinction between moral stress, on the one hand, and moral distress or moral injury, on the other, matter? Our real-world examples from the COVID-19 pandemic demonstrate that working in clinical environments produces various threats to professional integrity. Understanding all of these stressors through the singular lens of moral distress flattens human experience and overlooks a plethora of systemic moral tensions in contemporary healthcare work. Moral stress is more pervasive than moral distress, given its routine nature, and will likely persist at high levels in the aftermath of COVID-19 even as the episodic stressors that produced the lion's share of the pandemic's moral distress, such as resource constraints and visitor restriction policies, subside. It is therefore essential to distinguish between these phenomena to alleviate them moving forward.

Addressing moral stress requires a systems lens on healthcare organization and delivery. While some have acknowledged that redressing moral distress requires both individual- and systems-level resources and interventions (Hamric et al. 2015; Hamric and Epstein 2017; Rushton et al. 2017), many of the dominant approaches to reducing moral distress focus disproportionately on individual education and reflection because they are relatively easier to target (Chitwood 2020; Morley et al. 2021a; Tebes et al. 2022). Fixing broken systems is challenging work, to be sure. Yet the pandemic has also offered glimpses of what sorts of small yet consequential changes might be possible—such as advocating for equitable resource allocation policies or creating systems to map hospital bed availability—to address the underlying structural issues that are moral stress's root causes. Our research suggests several possible pathways for intervention, including acknowledging that it is harmful for physicians to feel like they are complicit in perpetuating disparities and taking action to change inequitable policies and processes; investigating institutional policies and processes

and soliciting feedback from staff to identify sources of moral stress; and creating more opportunities for on-the-ground decision-making that maximizes clinician agency in the face of stressors (Buchbinder et al. 2023b).

Responding to moral stress also entails thinking about how individuals are positioned in the social structure, because the same stressor can affect different people differently. Sukhera et al. (2021) use the term “structural distress” to describe feelings of powerlessness over policy decisions affecting resident physicians during the COVID-19 pandemic, with negative consequences for psychological wellbeing, including exhaustion and compassion fatigue. They suggest that attending physicians buffer the impact of structural distress by involving residents in policy decisions and being sensitive to power differentials. Their work highlights that even if better policies are created, they may not be experienced evenly by everyone in the medical hierarchy (see also Jenkins 2015). Yet “structural distress” cannot account for situations in which moral challenges are not primarily characterized by powerlessness, overt distress, or a specific inciting event. In such situations, moral stress is a useful conceptual complement.

The COVID-19 pandemic has manifested a wide range of moral stressors, but many of the stressors referenced here, including societal inequalities, ineffective government policies, and medical uncertainty long predated the pandemic, and will continue long after COVID-19. Working to improve clinician wellbeing in the aftermath of the pandemic will require attention to the moral dimensions of professional wellbeing, beyond simply preventing burnout (Shanafelt et al. 2017; Rotenstein et al. 2021; Shanafelt 2021; Rotenstein et al. 2022; Schlak et al. 2022). It will also require better measurement tools for distinguishing between the degrees of harm (and other outcomes) caused by moral stress, distress, and injury. Such measurements will help further distinguish between the concepts and better inform interventions designed to reduce them. The conceptual intervention made here provides the necessary tools for advancing nuanced bioethical understandings of the dynamic relationships among workplace environment, occupational stress, professional integrity, and wellbeing as we bolster health systems for future threats and aim to make routine healthcare work more supportive of professional integrity.

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Table 1.

Definitions of moral distress, moral injury, and moral stress

Concept	Key citation	Definition	Distinctive features	Consequences
Moral distress	Jameton (1984)	Distress arising from a situation in which a healthcare worker knows the right thing to do but is externally constrained for doing it.	Arising from an episodic situation or decision-making event, typically pertaining to a dilemma in patient care.	Feelings of powerlessness and negative feeling states (e.g., blame, shame, depression)
Moral injury	Shay (1995); Talbot and Dean (2018)	Lasting damage to one's sense of self or identity because of a moral transgression incurred because of one's professional duties.	An extreme event.	Lasting psychological injury
Moral stress	Cribb (2011)	Stress and threats to professional integrity arising from healthcare work in complex systems, and not being able to care adequately for one's patients due to systems constraints.	Pervasive, routine, and deeply embedded in healthcare work. Unlike moral distress and moral injury: • not be limited to situations of patient care or exceptional conditions. • may not be overtly distressing; • is not necessarily marked by powerlessness.	Stressed systems