

SYMPOSIUM ARTICLE

Moral injury in healthcare: A low-and-middle-income perspective

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1 | CASE PRESENTATION

In my (MFA) first month of surgical residency at a resource-constrained hospital in rural Ethiopia, a 40-year-old male motorbike driver was presented to casualty with a GCS of 4/15 after a collision with a bus. He was found to have an isolated head injury with multiple intracranial hemorrhages and cerebral edema. My plan was to admit him to the intensive care unit (ICU) and proceed with endotracheal intubation. I was alarmed as the consultant surgeon informed me that “we do not intubate head injury patients,” based on policy set by hospital leadership given the limited ventilator availability and generally poor outcomes of severely head-injured patients. Further complicating the decision was the lack of a legal definition of brain death in Ethiopia.¹ This confers potential legal risk to the physician and creates a barrier to terminal extubation in the event of what would be considered death by neurologic criteria in other countries. Despite our efforts, including bilateral decompressive craniectomies, the patient died.

Over the following months, I wondered whether I had done the right thing. What grew in me was a kind of moral distress because my moral and professional duty to care for my patient (ethical beneficence) sat in conflict with the hospital's policy and the hospital's policy regarding the care of patients with traumatic brain injury.

2 | ETHICAL DISCUSSION

The majority of the world's population lives in low- and middle-income countries (LMIC)² where marked resource constraints are the norm. Physicians trained in this environment realize and deal with limitations daily as they work to provide the best care possible. Understaffing, lack of equipment and supplies, deficiencies in imaging, lab support, pathology, quality airway management, limited to no critical care options, and stigmatization around complications and fatigue are part and parcel of everyday practice. The need to ration these extremely limited resources, especially when appropriate system-level rationing has to be effected by a physician at the bedside on individual patients as in our case, often presents ethical dilemmas that uniquely risk inducing moral distress—the inability of a moral agent to act according to his or her core values and perceived obligations due to internal and external constraints.³ In our experience, the risk of moral distress is empirically present regardless of whether the provider hails from an LMIC or an HIC. Rather than focusing on the ethical dilemmas faced by physicians and surgeons working in LMICs, we would like to highlight and further the discussion of the effects of moral distress and subsequent moral injury with a view toward identifying and mitigating the effects within an LMIC context.

Ethical dilemmas, sometimes referred to as moral dilemmas, are “situations in which, on moral grounds, persons ought both to do and not to do something”.⁴ In our case, the hospital is responsible for both the individual patient and the community it serves. That the resident physician feels particularly responsible for what's best for the patient at hand but is constrained by institutional guidelines in how he cares for the patient, generates a kind of moral distress,^{5,6} and illustrates a potentially morally injurious event (pMIE) that risks wounding the physician in a way that can have lasting effects if moral injury ensues. Moral injury (MI) conceptually grew out of a military context and is understood as the psychological, emotional, spiritual, and social wounding experienced when a deeply held moral belief has been transgressed.^{7–9} The experienced moral dissonance results in feelings of guilt and shame that lead to, and are compounded by, isolation.^{8,9} Such an adverse event (AE) is principally tragic for the patient and his family, though its effects ripple into the psyche of the surgeon.

Luu et al¹⁰ outlined four phases in the surgeon's response to an adverse event:

Phase 1. The kick: a visceral blow to the core, associated with a physiological response of anxiety and stress response

Phase 2. The fall: the feeling of spiraling out of control and the [surgeon's] need to ‘right themselves’, a feeling of a “pall over everything”

Phase 3. The recovery: coping with the event and emotions over time; learning from it and gaining expertise; using the knowledge to forgive themselves

Phase 4: The long-term impact: effects on judgment and decision-making, alterations in the scope or duration of surgical practice

Following this rubric, when recovery from an AE is incomplete, the long-term effects are detrimental not only to the surgeon emotionally and professionally, but also to the community she serves. In LMICs where surgical provider numbers and operative volumes are already inadequate to meet the needs of the people served,^{11,12} a surgeon's reduction in operative complexity and volume or early clinical retirement as a result of an AE compounds the deficits and threatens surgical healthcare in a way high-income countries do not experience. It becomes critical, then, to identify the symptoms and signs of moral distress among surgeons and trainees and, when possible, to mitigate the effects and prevent progression to moral injury.

A move to develop peer support programs has gained traction as a means of addressing the emotional fallout in a surgeon's life after an adverse patient event.¹³ Peer support principles include¹⁴ the following:

1. A loving presence: Someone available without judgment who can come alongside another, sometimes without speaking (colleague, friend, spouse, etc.).
2. Psychological safety: The comfort to ask questions and talk about things without the fear of criticism or humiliation.
3. Empathic listening: Engaged listening that is active and communicates concern and true care for the other.
4. Problem-solving guidance.
5. Reframing: Considering and providing alternate perspectives on the problem.
6. Appreciation for the peer.
7. Coping mechanisms can range from mindfulness practices, to talking, to exercise, to walks, journaling, etc.
8. Resource connection: Pointing the peer toward helpful books, professionals (e.g., legal, psychological), etc.
9. Non-judgmental curiosity: Asking questions and probing the situation with genuine interest that conveys acceptance and openness without judgment.

As an example of how peer support principles can be applied across the phases of a surgeon's response to an adverse event, consider a surgeon in a low-resourced context with limited timely pathology services who undertakes a liver resection for a tumor of unknown etiology. Complications of the operation ensue and the patient dies in the early postoperative period. Weeks later, the pathology returns as a benign lesion. The “kick” (Phase 1) of the post-operative death results in his not being able to sleep and re-running portions of the operation over and over in his head. As he enters the “fall” (Phase 2), he worries about the future operative cases, regardless of the expected complexity, becomes a bit more withdrawn and short with family and friends, and loses some of the joy of practicing surgery. It is during these periods that a peer can come alongside the surgeon to be a safe, loving presence who can show true appreciation for the afflicted surgeon. The peer may have a similar personal experience making her more empathetic and able to be curious and non-judgmental. Her distance from the situation affords her a perspective that can reframe the actual events and decisions of the surgeon's case to provide a more objective, and often accurate, view of the case as a whole. By connecting the surgeon with other resources and coping mechanisms (e.g., books, mindfulness practices, legal professionals, etc.), the

supportive peer can help move the surgeon toward “recovery” (Phase 3) with a positive “long-term impact” (Phase 4) for the surgeon and the community he serves.

A Second Victim Peer Support program was developed within the Department of Surgery at The Massachusetts General Hospital (Boston, MA, USA) to help surgeon colleagues deal with the emotional grief and pain experienced after difficult events.¹⁵ When run well, traditional morbidity and mortality (M&M) conferences offer an opportunity for peer support and emotional processing of adverse events; however, the authors found their M&M insufficient in this regard and cite a benefit in their institutional culture toward increasing support as a community and a move toward resilience and rejuvenation rather than failure and vulnerability within surgeons and trainees. Because the hierarchical culture of surgery coupled with the mental health stigma often associated with moral injury can limit the willingness of trainees to report or seek help for symptoms of moral injury, the Vanderbilt University General Surgery residency program built Moral Injury Small Group sessions into the formal didactic schedule throughout the academic year. These sessions are led by faculty and trainee surgeons who have been trained to identify and provide resources for those experiencing moral injury.¹⁶ These sessions have helped to normalize the discussion of the effects of an AE on physicians' well-being.

Tools such as the Moral Injury Symptom Scale—Healthcare Professionals version (MISS-HP)¹⁷ and a moral distress scale have been used across a global sample of healthcare professionals. Corley was the first to develop a moral distress scale for non-global health moral distress¹⁸ and her scale is widely used.⁵ Her scale was initially developed for nurses and is based on 30 questions with a 7-point Likert scale, which was later revised to a 4-point scale. The instrument has been modified and applied to nurses and doctors around the world but, to our knowledge, has never been used in the cross-cultural context.^{19–21} Questions in the instrument surround concepts of knowing the right thing but being prevented from doing it, being asked to do what the subject regards as the wrong thing, helplessness, power to change the subject's situation, power to change the patient's outcome, guilt and shame associated with a single or multiple events, etc. MISS-HP has been applied particularly in relation to the resource constraints during, and effects of, the COVID-19 pandemic, to assess 10 theoretically grounded dimensions of MI—betrayal, guilt, shame, moral concerns, religious struggle, loss of religion/faith, loss of meaning/purpose, difficulty forgiving, loss of trust, and self-condemnation.^{22–24} While our understanding of moral distress and injury is developing, research in the global health arena is lagging. The development of a tool for global health professionals is sorely needed. The MISS-HP could be

helpful to hospital administration, training institutions, and non-governmental medical aid programs operating in LMICs to screen for MI and to help in directing services to those experiencing symptoms of moral injury.

Anecdotally, surgeons in HICs and LMICs alike experience moral distress in their clinical practices, with some going on to suffer moral injury. With the increasing and necessary focus on global surgery, more and more HIC surgeons are spending time working in LMICs alongside their LMIC partner surgeons. LMIC surgeons are also increasingly able to partner with and spend time with surgeons in HIC contexts. These cross-cultural experiences can be immensely enriching to the surgeons; however, they also have the potential to wound when personal ethical expectations or standards are not met. In each scenario, the ex-patriate surgeon is at risk for moral distress and injury. Resource limitations at some level are true everywhere but they manifest themselves differently. How one culture understands and applies principles of distributive justice amid these constraints will necessarily vary from that of another. Should limited resources be broadly distributed to improve the average health of a population (equality principle) or directed toward those with the greatest healthcare needs (equity principle)²⁵? The LMIC surgeon may question the distributive justice of spending between USD 400,000 and USD 1,000,000 on the care of a single newborn with congenital diaphragmatic hernia requiring extracorporeal membrane oxygenation (ECMO), when the cost of averting selected pediatric surgically related disability-adjusted life year (DALY) is USD 40–245^{26,27} in reports from LMICs. The HIC surgeon working in a LMIC often experiences profound practice differences due to the staff, staff, space, and system (four S's) challenges unique to the LMIC setting and foreign to the HIC surgeon. The “inevitability” of a clinical outcome is understandably perceived differently based on the surgeon's experience, expectations, and understanding of resources. Consider, for example, the tragic death of a patient with a bi-hemispheric gunshot wound to the head. Regardless of clinical context, the HIC provider generally accepts the inevitability of death with limited moral distress. Present that same HIC provider, transplanted to a LMIC context, with a patient suffering from a condition that is imminently (or even potentially) survivable in an HIC context, but near universally lethal in the LMIC context (e.g., gastroschisis in many parts of the world), and it is not surprising when the surgeon experiences an inner dissonance as to the “inevitability” of the condition. In both scenarios, the LMIC and HIC surgeons are faced with challenges to the clinical, cultural, and societal standards they have adopted through their upbringing and training. These stressors increase the cognitive/allostatic load of the HIC or LMIC provider, rendering them more vulnerable to physical and psychological stress and illness.²⁸ As

the overall stress associated with a foreign context increases the cognitive load, a sense of helplessness associated with the lack of professional efficacy can compound the injury.

While cultural differences would be expected to instruct responses to pMIEs, there is a humanity and sacredness to life, embodied in part by the Hippocratic Oath—*primum non nocere* (first, do no harm)—shared by physicians the world over. Physicians as a whole, and surgeons uniquely at times, carry the weight of their decisions and actions in caring for patients and their families. The care of patients in the context of extreme resource limitations and the policies and cultural perspectives that instruct resource allocation are often complicated and nuanced. As our case above highlights, there implications are not only for the patients but also for the physicians and surgeons at the bedside. We contend that surgeons and trainees working long- or short-term in LMICs should have access to culturally appropriate peer support to identify signs of moral distress with the goal of mitigating the effects of moral injury.

AUTHOR CONTRIBUTIONS

Muse Freneh Anito contributed to conceptualization, writing and review of the original draft. Mehret Desalegn contributed to conceptualization of the work and review of the original draft. Nathan M. Novotny contributed to conceptualization, writing and review of the original draft and writing of revisions. Erik N. Hansen contributed to conceptualization, writing and review of the original draft and writing of revisions.

CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest.

ETHICS STATEMENT

None.

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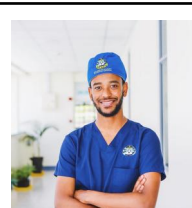
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