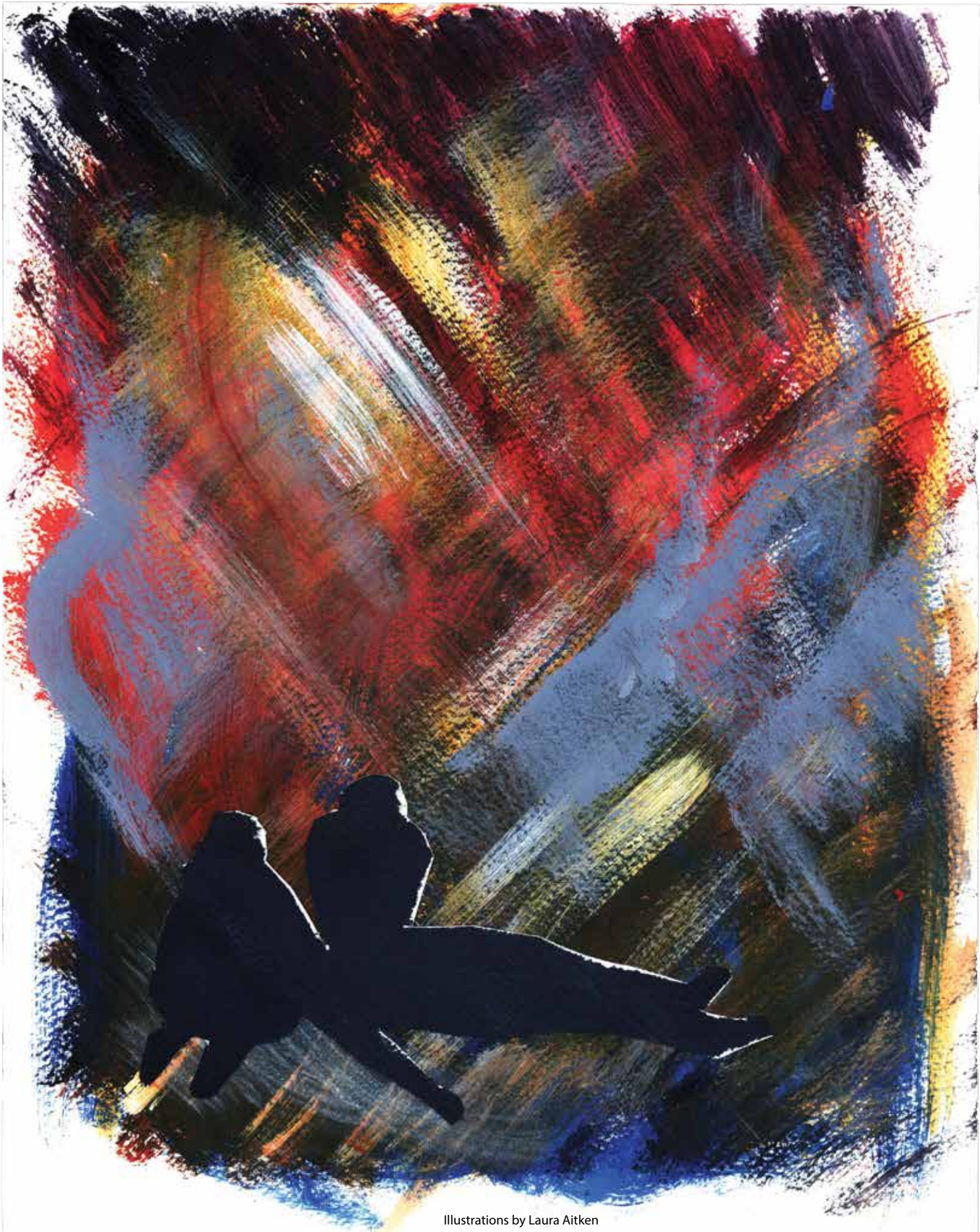

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Running toward the fire

Empathy and ethics in medical education

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The senior family physician seated before me offered just one piece of advice: for the next three years of residency training, my job was "to run toward the fire." I should consider every crisis a learning experience and a personal responsibility to help where I could. When a "Code Blue" was called on the overhead public announcement system, I should rush to the patient's bedside to gain experience attempting to resuscitate someone. I sensed that he also felt that physicians have an overarching ethical responsibility to respond to crisis situations. While it seems that ethical choices should come naturally to practitioners of an empathy-rich art like medicine, recent studies of medical students and residents demonstrate a complex link between ethics and empathy. Whether one agrees or disagrees that physicians have extraordinary responsibilities in times of crisis, maintaining this sense of duty relies on training medical students to become doctors who will run toward the fire. This may not be so easy.

Much has been made of recent data that show that medical student empathy declines successively with each year of medical school. Indeed, pooled data from nine separate studies demonstrated a significant decrease in empathy during medical school.[1] One study, frighteningly titled "The Devil Is in the Third Year," followed 456 medical students throughout medical school, and observed that while empathy scores were relatively consistent during the first two years, by the end of the third year students showed a significant decline in empathy that persisted until graduation.[2] The third year of medical school marks a great transition for medical students: the move from the lecture hall to the patient's bedside. Increased stress, longer hours, and the difficulty of learning medicine—let alone compassion—have all been proposed as possible reasons for this decrease in empathy.

Perhaps the best way to understand the causes behind this decreased empathy is to listen to medical students' own stories. Rather than focusing on data and numeric measures of empathy, one fascinating study simply interviewed a group of medical students throughout the years of medical school. One fourth-year female participant, for example, argued that medical students become less empathic because they treat patients as "intellectual cases rather than people."[3p11] A fifth-year male participant said, "When starting off, you will let the empathy affect the way that you are, whereas that happens less as you go through medical school."[3p11]

Not all students felt that empathy declined during the years of medical school. Some believed that gaining experience allowed them to develop strategies for enhancing their empathic response. A fourth-year female student explained, "I understand a bit more about the conditions and I know how they affect patients."[3p11] Another fourth-year female student summed up what many also expressed: "I felt very emotional a lot of the time dealing with breaking bad news, watching people die . . . watching people get sick . . . That used to affect me and it affects me less now, but it's not because I don't feel it, it's because I don't let it affect my emotions as much."[3p11] The study's authors found that medical students had contrasting experiences with respect to the decline or enhancement of empathy, and concluded that students experience a more affective or emotional type of empathy at the beginning of their studies, with their focus shifting toward a more intellectual or cognitive version of empathy as training progresses.[3]

Unfortunately, medical students are not the only ones affected by decreased empathy. At least five studies have shown a continuing decrease in empathy during residency.[1] One study of resident and attending physician views found that "derogatory and cynical humor directed at patients is a well-documented and ubiquitous phenomenon in medical

education."[4p38] The two most common locations for derogatory humor were hallways outside patient rooms during rounds and in conference settings where residents congregate. Attending physicians and residents agreed that the "rules" of the game dictated that the persons within the group with the least authority, particularly medical students, almost never initiated derogatory humor.[4] The objects of such derogatory comments most often included alcohol- and drug-abusing patients, obese patients, and a "large category of 'difficult' patients."[4p37]

One internist called this behavior a coping mechanism, saying, "Sometimes we spill over into derogatory humor and that's wrong and we try to catch ourselves . . . [yet if we] took everything we saw seriously every day we wouldn't make it through the day emotionally."[4p39] These unprofessional behaviors can continue beyond the training period. In a study published in *Medical Education* in 2000, Brigitte Maheux and colleagues found that forty percent of fourth-year and twenty-five percent of second-year medical students believed that their teachers did not behave as humanistic caregivers or were not good role models in teaching the doctor-patient relationship.[5] Perhaps unsurprisingly, this study's authors and others emphasize that medical students make assessments of derogatory humor that are remarkably similar to those made by residents and attending physicians. This finding highlights the degree to which medical students look to more senior clinicians as role models of professionalism.

While empathy may be a strong driver for running toward the fire or responding to a crisis, the decision to do so—or not—is ultimately an ethical one. This raises the question: does a decline in ethical behavior parallel the decline in empathy in medical school? A recent study examining both medical student empathy and professional conduct found a surprising answer. In a survey of students at seven U.S. medical schools, fewer than ten percent of students reported engaging in cheating/dishonest academic behaviors, compared to an astonishing forty-three percent of the 2,682 students who reported unprofessional conduct related to patient care (including reporting a result as normal that had been inadvertently omitted from the physical exam, and affirming that a test had been ordered when it actually had not). This seems to suggest that students hold unprofessional conduct in patient care to a different standard than similar conduct in a strictly academic setting.

Importantly, students' emotional and psychological states strongly related to their professionalism. Students with burnout—those who experienced long-term exhaustion and diminished interest—were almost twice as likely as those without to report engaging in unprofessional behaviors.[6] They were also less likely to report holding altruistic views regarding physicians' responsibilities to society; for instance, they were barely half as likely as students without burnout to want to provide care to the medically underserved.[6] With each year of medical school, the students surveyed became more likely to have engaged in unprofessional behavior, the rates rising from 4.7 percent in the first year to 34.6 percent in the fourth year.[6] In addition, increasing student debt is correlated with increases in unprofessional behavior: In one study, 10.8 percent of students with debt less than $50,000 engaged in unprofessional behavior, compared to 25.6 percent of students with debt greater than $125,000.[6]

It is interesting to note that declines in empathy among medical students are not universal. A study of Portuguese medical students found that students in their final year were more empathic than those in their first year.[7] A number of studies have shown that female students are less likely than male students to experience as large a decline in empathy during medical school.[8] And medical students who choose person-focused fields of medicine are likewise less likely to experience a decline in empathy compared to students who enter technology-oriented fields.[8] These studies, as well as many others, were performed using the independently validated student version of the Jefferson Scale of Physician Empathy, a common questionnaire for measuring the empathy of medical students.

Further research has shown that doctors may actually experience an "empathy bump" in their first few years of fully licensed practice, bringing their empathy levels close to where they were before the declines in medical school and residency.[9] In response to the recently recognized problems of declining empathy and increased unprofessional behavior, medical schools are experimenting with structured methods to combat these problems.

At the Indiana University School of Medicine, the tenets of appreciative inquiry (AI) and complex responsive processes (CRP) are used in the medical student curriculum, in which students reflect on emotionally challenging patient cases.[10] AI is a method adapted from management science that focuses on amplifying what an organization does well rather than eliminating what it does badly. In comparison, CRP is a way to structure group communication that emphasizes conversation and encourages each group member to reflect on how individual ideas can unpredictably combine and produce novel outcomes. Many other medical schools employ required written assignments, though student perception of these predictably varies from the enthusiastic to the burned out. Whatever the perception of such assignments, many medical schools are actively trying to teach empathy and professionalism.

The issue of professionalism in medicine is hardly a new phenomenon—the Hippocratic Oath of circa 400 BCE may be considered medicine's first code of professionalism, one that has grown more relevant as recent research demonstrates the scope of the problem with respect to medical education. The pioneering 1997 paper by Richard and Sylvia Cruess, "Teaching Medicine as a Profession in the Service of Healing," brought to light the crisis in medicine, fomenting since the

1960s, "not of competence or skill but of moral standing and authority."[11p942] The Cruesses nevertheless emphasized the idealism and commitment of incoming medical students and outlined a proposed program that they felt should be taught by all institutions of medical training, including: the concept that being a medical professional is not a right but a privilege, and the foundation of altruism inherent to the moral value of professionalism.[11]

The 1910 Flexner Report revolutionized medical education and led to unparalleled strength in the national system of physician licensing. Meanwhile, empathy and ethics received comparatively less attention. Programs such as those outlined by the Cruesses and established by Indiana University School of Medicine demonstrate a sea change in medicine's approach to professionalism. These days, the Oath of Maimonides, which is commonly used before the start of the third years, has largely replaced the Hippocratic Oath in medical schools. One line in particular speaks to medicine's professional tenets of ethics and empathy: "May I never see in the patient anything but a fellow creature in pain."

Many would argue that doctors bear a special responsibility to respond to crisis situations. Some hospitals include clauses in their contracts with doctors and other members of the health care team stipulating that they must report to work in the event of natural disasters or infectious outbreaks. Thus, like other first responders, physicians and health care teams are likely to be exposed to risks greater than those for the general population. The actions of all first responders are informed by a sense of altruism and ethical duty. But what if that sense of ethics and altruism in physicians—that cornerstone of not just caring for patients, but caring *about* patients—is diminishing in medical students and, as a logical consequence, in the doctors they become? While recent data demonstrate that this is the case, recognition of the problem has allowed medical schools to reshape their curricula toward helping medical students maintain the empathy and professionalism with which they enter their medical training. "Whenever you see people running one way," the senior family physician advised, "you run the opposite direction—toward where they came from." Let us hope the next generation of doctors agrees and shoulders its responsibility to serve the suffering.

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