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Teaching Professional Formation in Response to the COVID-19 Pandemic

Laurence B. McCullough, PhD, John Coverdale, MD, MEd, and Frank A. Chervenak, MD, MMM

Abstract

In response to the COVID-19 pandemic, the Association of American Medical Colleges has called for a temporary suspension of clinical teaching activities for medical students. Planning for the continued involvement of learners in patient care during this pandemic should include teaching learners professional formation. The authors provide an ethical framework to guide such teaching, based on the ethical principle of beneficence and the professional virtues of courage and self-sacrifice from professional ethics in medicine. The authors show that these concepts support the conclusion that learners are ethically obligated to accept reasonable, but not unreasonable, risk. Based on this ethical framework, the authors provide an account of the process of teaching professional formation that medical educators and academic leaders should implement. Medical educators and academic leaders should embrace the opportunity that the COVID-19 pandemic presents for teaching professional formation. Learners should acquire the conceptual vocabulary of professional formation. Learners should recognize that risk of infection from patients is unavoidable. Learners should become aware of established ethical standards for professional responsibility during epidemics from the history of medicine. Learners should master understandable fear. Medical educators and academic leaders should ensure that didactic teaching of professional formation continues when it becomes justified to end learners' participation in the processes of patient care; topics should include the professionally responsible management of scarce medical resources. The COVID-19 pandemic will not be the last major infectious disease that puts learners at risk. Professional ethics in medicine provides powerful conceptual tools that can be used as an ethical framework to guide medical educators to teach learners, who will bear leadership responsibilities in responses to future pandemics, professional formation.

COVID-19 is a virus that is highly infectious and has significant mortality and morbidity. Infected individuals, especially those who are asymptomatic, can become vectors early in the course of their infection. In response to the COVID-19 pandemic, on March 17, 2020, the Association of American Medical Colleges (AAMC) made the important and timely recommendation for a 2-week temporary suspension of clinical teaching activities for medical students.[1] Planning for the continued involvement of learners in patient care during the COVID-19 pandemic should include teaching learners the professional formation that will serve them well for their entire careers. We provide an ethical framework to guide such teaching, based on the ethical principle of beneficence and the professional virtues of courage and self-sacrifice from professional ethics in medicine.[2,3]

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Ethical Framework

The ethical principle of beneficence

The ethical principle of beneficence creates the ethical obligation of the physician to identify and provide medically reasonable clinical management for the patient's condition (e.g., pregnancy) or diagnosis (e.g., COVID-19 infection). Medically reasonable means that a form of clinical management is predicted in deliberative (evidence based, rigorous, transparent, and accountable) clinical judgment to result in net clinical benefit for the patient. Net clinical benefit means that the clinically beneficial outcomes of the clinical management outweigh the biopsychosocial risks of the processes of patient care.[2]

The professional virtues of courage and self-sacrifice

In his *Dialogues*, Plato (428?–348? BCE) has Socrates (470–399 BCE) explain the virtue of courage as comprising intellectual and physical courage.[4] Thus, courage is an intellectual and physical virtue. The intellectual virtue of courage requires an individual to distinguish between what one ought to fear and ought not to fear. Current evidence supports the clinical judgment that with effective infection control, the risk of infection with COVID-19 from patients can be managed such that the risk is very low. Such a level of risk should not be feared. The risk of infection without effective infection control does not minimize risk. In such clinical circumstances, medical faculty and learners are justified to fear infection. The scope of risk extends beyond an individual, that is, the scope also includes others whom medical faculty and learners have an ethical obligation to protect, such as family members, friends, and neighbors.

Physical courage requires an individual not to be unduly influenced when encountering risks. This judgment is key to achieving self-discipline in response to risk, an important consideration for learners with no prior experience of risk of serious infection from patients. In response to risks that should not be feared, physical courage calls for an individual to go about routinely fulfilling his or her duty. This means that medical faculty and trainees should not shirk their professional responsibility to patients but accept risk for the benefit of the patient. However, this ethical obligation is a

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prima facie obligation, which means that it has ethically justified limits.

These limits originate in the professional virtue of self-sacrifice, which creates the ethical obligation to accept *only* reasonable risks to oneself to fulfill beneficence-based ethical obligations to patients.[2] It is essential that the judgment of reasonableness be made in a disciplined way to tamp down and master the undue influence of understandable self-interest that encountering risk may provoke. The process for arriving at this judgment should be rigorous and transparent. The evidence base and criteria used to make the distinction between reasonable and unreasonable risk should be identified by medical educators, academic leaders, and organizational leadership and then clearly and effectively communicated to clinical faculty and staff and all learners. This process of disciplined judgment will conclude that some risks should be considered unreasonable. Self-sacrifice does not create an ethical obligation to accept unreasonable risks in patient care and organizational policy should make this clear.

While there is no ethical obligation to take unreasonable risks, one is free to do so as long as one does so in a disciplined way. Disciplined acceptance of unreasonable risk is heroic. Undisciplined acceptance of risk by a physician, that is, taking unreasonable risks without careful thought and consultation with experienced and knowledgeable colleagues, is reckless, not heroic.

Teaching Learners Professional Formation

Embracing the opportunity to teach professional formation

Military academies transform cadets into officers with command responsibility. Seminaries transform seminarians into clergy who take responsibility for the spiritual well-being of their congregants. Law schools transform their students into officers of the court with the responsibility to uphold the rule of law. Medical schools transform students into physicians who are prepared to assume progressive professional responsibility for patients during residency, fellowship training, and independent practice. Medical educators and academic leaders should embrace the opportunity that the COVID-19 pandemic presents for teaching professional formation.

Acquiring the conceptual vocabulary of professional formation

The first step in teaching learners professional formation is getting clear about ethically relevant concepts, so that learners master the conceptual vocabulary of disciplined ethical judgment. To this pedagogical end, medical educators should teach the conceptual vocabulary of (1) the ethical principle of beneficence as a prima facie ethical principle and its associated concept of medical reasonableness, (2) the professional virtues of courage (intellectual and physical) and self-sacrifice and how they create prima facie ethical obligations to accept reasonable risk but not unreasonable risk, and (3) the concepts of heroism and recklessness and how to distinguish between them.

Learners should have the opportunity to practice making disciplined judgments by clearly articulating these concepts and identifying their implications for responding to risk to themselves. They should clearly understand why it is ethically obligatory to accept reasonable, but not unreasonable, risk to themselves. Risk increases for learners based on their health status and in relation to the health status of family members and others with whom learners interact. In the clinical setting, the process of making disciplined judgments should be repeated, so that learners come to master the process and appreciate justified variations in the assessment of risk.

Recognizing unavoidable risk

Physicians are unavoidably exposed daily to patients who are vectors, including patients who are vectors for serious infections. Medical educators should emphasize the existence of unavoidable risk to medical students from their first days of medical school, with the pedagogical goal of dispelling false beliefs to the contrary. This teaching should never stigmatize patients who are vectors.

Some medical students may not appreciate the clinical reality of unavoidable risk. They need to be educated by clinical faculty, ideally by faculty who have had direct experience with responding to pandemics in the past, such as the human immunodeficiency virus (HIV), H1N1 influenza virus, severe acute respiratory syndrome, and Ebola virus disease pandemics. Some medical students might believe that they do not have to accept exposure to risk because they have not consented to it. This is not compatible with professional formation. In professional ethics in medicine, professional responsibility for patients is more fundamental than the individual autonomy of physicians and, therefore, of learners.[2]

Learning established ethical standards for professional responsibility during epidemics from the history of medicine

The coinventors of professional ethics in medicine, the physician–ethicists John Gregory (1724–1773) and Thomas Percival (1740–1804), made clear that professional responsibility to patients should take primacy over self-interest.[2,3] Benjamin Rush (1746–1813), Gregory's colonial American medical student at the University of Edinburgh, brought Gregory's professional ethics in medicine to the United States.[5] Rush argued that physicians have the ethical obligation not to abandon patients during epidemics. Rush fulfilled this obligation by attending to patients with yellow fever in Philadelphia in 1793, in part because he did not believe that yellow fever was a communicable disease.[6]

Gregory and, especially, Percival influenced the 1847 *Code of Ethics* of the American Medical Association (AMA), the first national code of medical ethics in the history of the United States. The *Code* made this obligation explicit, listing it among "the duties of the profession to the public."[7] Physicians should identify means to prevent epidemics and educate the public about such prevention. However, physicians' duties go further: "when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of suffering, even at the jeopardy of their own lives."[7(p333)] The point for learners is that the ethical obligation to take reasonable risk to oneself is historically well-established and accepted.[8]

Mastering understandable fear

Medical students, residents, and fellows who are confronting personal risk for the first time need to learn how to master understandable fear by staying focused

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on their professional responsibility and their professional formation. Medical educators should acknowledge this fear and role model the self-discipline that the commitment to courage and self-sacrifice creates. Learners ought not to allow understandable fear to undermine professional formation when the risk of infection is minimized by effective infection control. Such risk is reasonable. The professional virtues of courage and self-sacrifice create the ethical obligation to accept reasonable risk.

Effective medical educators teach the basics again and again to each new generation of learners. Teaching the basics means asking learners what is essential about the patient's condition and its clinical management and then teaching learners how to determine what is essential: aspects of the patient's condition that are salient to diagnostic and treatment planning. Medical educators should also teach the basics of mastery of fear. They should ask what is essential for mastering fear: acknowledging that fear exists, distinguishing reasonable from unreasonable risk, and accepting reasonable risk. Medical educators should then emphasize that any residual fear of reasonable risk should never distract learners from the tasks of professional formation.

Didactic teaching of professional formation

The Hastings Center[9] as well as leading ethicists[10] have provided guidance on the professionally responsible use of scarce resources during a pandemic that can be used to teach professionally responsible resource management. When scarcity of resources requires severely limiting clinical teaching—for example, when there is an insufficient supply of personal protective equipment—didactic teaching of professional formation should become the primary focus. Medical educators should emphasize that the responsible management of scarce resources includes setting evidence-based and ethically justified priorities for access to diagnosis and treatment.[9,10] When such scarcity exists, the beneficence-based ethical obligation to minimize the risk to patients from the involvement of learners requires that learners no longer take part in the processes of patient care. It should be made very clear to learners that the reason for excluding them is to protect both learners and patients, as the AAMC guidance justifiably emphasizes.[11]

Medical educators and academic leaders should continue to educate learners about and teach them professional formation in relation to COVID-19 even when direct clinical contact ends by ensuring that didactic teaching occurs. Medical educators should address what is known and what is not known about COVID-19 infection and its clinical management. It is typical early in the experience of new forms of disease for clinical judgment to be made with an incomplete fund of knowledge and clinical skill sets. Learners should be taught how to make clinical judgments under such conditions of uncertainty. This challenge presents an excellent opportunity to deploy the skills of critical appraisal, especially the use of these skills to identify misinformation and then ignore it and the fear that it can engender as a matter of professional formation.

In didactic and clinical teaching, senior clinical faculty should become the bearers of lived experience in the history of previous pandemics. These faculty, unlike students and residents, have living memory of taking risks to themselves to care for patients who are vectors. Senior faculty with such memory, especially of the HIV pandemic in the 1980s and 1990s, are ideally equipped to teach the self-mastery called for by the professional virtues of courage and self-sacrifice. Resources for such teaching include the history of how the AMA made it clear that when effective infection control is used, physicians have the professional responsibility to care for patients who are vectors.[12]

Conclusions

Academic health centers have taken many effective public health measures and steps to ensure access to and the quality of patient care in response to the COVID-19 pandemic. Teaching learners professional formation should also be an essential component of that response. Efforts to undertake this teaching should take a long view. The COVID-19 pandemic will not be the last major infectious disease that puts learners at risk. Professional ethics in medicine provides powerful conceptual tools that can be used as an ethical framework to guide medical educators to teach learners, who will bear leadership responsibilities in responses to future pandemics, professional formation.

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