The aim of this section is to expand and accelerate advances in methods of teaching bioethics.

When Teachable Moments Become Ethically Problematic

ELIZABETH DZENG

Abstract: There is frequently tension in medical education between teaching moments that provide skills and knowledge for medical trainees, and instrumentalizing patients for the purpose of teaching. In this commentary, I question the ethical acceptability of the practice of providing cardiopulmonary resuscitation (CPR) and advanced cardiac life support (ACLS) to dying patients who would be unlikely to survive resuscitation, as a teaching opportunity for medical trainees. This practice violates the principle of informed consent, as the patient agreed to resuscitation for the purpose of potentially prolonging life rather than to futile resuscitation as a teaching opportunity. Justifying futile resuscitation in order to practice normalizes deceptive and nonconsensual teaching cases in medical training. Condoning these behaviors as ethically acceptable trains physicians to believe that core ethical principles are relative and fluid to suit one's purpose. I argue that these practices are antithetical to the principles espoused by both medical ethics and physician professionalism.

Keywords: end-of-life care; medical education; futility; resuscitation; informed consent; hidden curriculum

During my 3rd year medical school intensive care unit (ICU) subinternship, I took care of a young man who had become a quadriplegic from a gunshot wound several years earlier. Because of an array of complex psychosocial and medical issues, he had required bilateral amputations to the hip and developed severe stage IV sacral ulcerations so deep that muscle and bones were exposed. He was admitted for overwhelming sepsis and his prognosis was grim. Multiple members of the team including me, the house staff, and the attending, explained to him his extremely poor prognosis and the fact that he would likely not survive resuscitation; however, it was unclear whether or not he had the capacity to make decisions, and, therefore, our attempts at a Do Not Resuscitate (DNR) order were stalled by difficulties in finding his next of kin.

Before we had time to confirm his resuscitation status, he had a cardiac arrest. Rather than stopping the resuscitation when it was clear he would not survive, seeing this as a perfect teaching opportunity, our attending encouraged the three interns to rotate leading a code that lasted well over an hour.

I thank Alexander K. Smith, MD, MPH for his insightful comments to the manuscript and Stephen Barclay, Bm, BCh, MD; Michael P. Kelly, PhD; David Levine, MD, MHS, ScD; Martin Roland, Bm, BCh, DM; and Thomas J. Smith, MD for their mentorship during the doctoral project from which the data from this article were obtained. The data cited in this study were funded by the Health Resources and Service Administration T32 HP10025-20 Training Grant and the Gates Cambridge Scholarship. Ethical approval was granted for the study by the Johns Hopkins School of Medicine Institutional Review Board (NA_00080529, 1/28/2013).

Cambridge Quarterly of Healthcare Ethics (2017), **26**, 491–494.

doi:10.1017/S096318011600116X

Staring intently at their pocket cards, they slowly and thoroughly went through each step in the advanced cardiac life support (ACLS) algorithm. Although it was clear to all of us that the patient would never survive the resuscitation, his heart was tenacious. With every jolt of epinephrine, asystole would temporarily convert to ventricular fibrillation. During the relentless chest compressions I subjected him to, his sacral ulcers and rotting flesh became increasingly one with the hospital bed.

As a medical student, I was engrossed by the medical facts and did not think twice about the ethical issues surrounding this patient's care. However, as my training progressed, I began to revisit this moment with growing disquiet. In an interview study I conducted at American academic medical centers regarding attitudes and beliefs surrounding resuscitation at the end of life,[1,2] institutionalized rationalization of resuscitation that is highly unlikely to succeed as a potential learning opportunity for physician learners was not an uncommon theme. A physician described the self-interested aspect of medical learning as a justification for futile resuscitation for the sake of medical education:

> We are torturing this poor gentleman… I vaguely feel uncomfortable general gestalt of what happens in the ICU, and what we do in the ICU to people at the end of life? I feel morally sick to my stomach about it of course. Some of what we do up there is awful, but some of those things have also given me the skills to resuscitate the twenty seven year old who comes in with catastrophic APLS and multi organ system dysfunction who we then do save. I'm not justifying, I don't mean to justify the torture that we put our elderly chronically critically ill and dying through but it did provide me with many learning opportunities to help people who then could be saved.

An attending who frequently supervised residents similarly commented:

> I wouldn't have any problem with people learning how to do CPR on patients in the morgue. I personally do not think that bodies are sacred when they're dead…I were to drop dead right now and be un-resusitatable and you thought that this was a great opportunity to have need students come in and do, try CPR and mutilate my body for the sake of learning, I'm okay with that… It's making people confront things that make them uncomfortable that they're going to have to confront in much more challenging situations in the future.

These "teachable moments" are at the core of the trainee learning experience. Patients are generally aware that a teaching hospital team is composed of trainees who use their admission as learning opportunities that are integral to their development into competent physicians. However, the line between teaching moments and situations in which informed consent and beneficence touch the boundary of ethical permissibility can be treacherously thin.

The American Medical Association (AMA) Code of Medical Ethics states that the "physician shall, while caring for a patient, regard responsibility to the patient as paramount."[3] Teaching hospitals have an additional responsibility toward the education of health professionals; however, I believe that this should not be at the expense of the patient. In the preceding quotations, futile resuscitation was justified by some as an important teaching tool, as it gave trainees opportunities to practice.

However, this practice violates the principle of informed consent, as the patient agreed to resuscitation for the purpose of potentially prolonging life rather than as futile resuscitation as a teaching opportunity. Justifying futile resuscitation in order to practice

normalizes deceptive and nonconsensual teaching cases in medical training. The lack of disclosure can cause false hope and emotional harm, if families believe that physicians are providing this care because it might actually help.

Fred Hafferty recognized the ethical tensions between training and patient care when describing the hidden curriculum, "The ethical dilemmas created by the structure of the educational experience itself, including…the requirement that students function in multiple—and often conflicting—roles (e.g. students simultaneously functioning as learners and as providers of care)."[4] Attending physicians are role models for moral conduct, within a broader cultural milieu that socializes trainees to internalize the ethical norms inherent in their particular institutional system.[5] Several articles published in this journal, including the Romanell Report on the essential role of medical ethics education in achieving professionalism, have emphasized the critical importance of recognizing the hidden curriculum in undermining professionalism, and a need to change the culture of medicine as a whole to promote ethical behavior in learners.[6,7]

These teaching moments have been shown to affect professional behavior. In the case of futile resuscitation, one could argue that the patient is already dead and, therefore, would not experience suffering or pain. However, condoning these behaviors as ethically acceptable trains generations of physicians into believing that core ethical principles are relative and fluid to suit one's purpose. This goes against the foundation of medical ethics, which is in part derived from Kantian ethics whereby, a person should "never merely [be treated] as a means to an end, but always at the same time as an end."[8] Similarly, using a dying patient as a teaching moment is antithetical to many definitions of physician professionalism, which often include subordinating one's needs to the interests of others.[9]

Studies have shown that medical students were ethically troubled by potential harms to patients caused by the educational process.[10] Other studies have shown that participating in ethically compromising activities promotes beliefs that are unethical. Students who practiced pelvic examinations on anesthetized patients without specific informed consent had a statistically significant decrease in their belief that informed consent was important.[11] Although teaching is necessarily a part of the medical student experience, the profession must be careful about the manner and extent to which we use futile resuscitation as a teaching strategy. Further studies should explore whether these situations may contribute to a loss of empathy by further depersonalizing patients as instruments of teaching rather than people who are about to die.[12]

The culture of medicine necessarily has a complicated relationship with dehumanization, which is a necessary first step in ethically justifying using patients for learning purposes. To a degree, dehumanization is crucial from the day medical students step into the anatomy laboratory and cut into their first body.[13] Moral distancing allows students to learn on bodies, turning the body from a human being into a practical learning tool. Recognition of the effect this has on physician humanism, many medical schools have instituted donor memorial ceremonies to remind students of their donor's humanity.[14]

Medical training programs have a duty to foster not only skilled, knowledgeable physicians, but also humanistic physicians with a strong moral compass. The transition from cadavers to human patients provides key learning

opportunities that can either counter or promote dehumanization. Using dead or dying patients as teaching material speaks volumes to the respect we believe our patients deserve and its subordinate position relative to medical education. Providing nonbeneficial and potentially harmful treatments for the sake of teachable moments may help train a competent physician, but are the effects of these experiences on the moral education of physicians worth it?

Notes

1. Dzeng E, Colaianni A, Roland M, Chander G, Smith TJ, Kelly MP, et al. Influence of institutional culture and policies on do-not-resuscitate decision making at the end of life. *JAMA Internal Medicine* 2015;21, 287:1–8.
2. Dzeng E, Colaianni A, Roland M, Levine D, Kelly MP, Barclay S, et al. Moral distress amongst american physician trainees regarding futile treatments at the end of life: A qualitative study. *Journal of General Internal Medicine* 2016;31(1):93–9.
3. AMA Code of Medical Ethics. AMA, 2016; available at http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics.page. (last accessed 21 Mar 2016).
4. Hafferty F, Franks R. The hidden curriculum, ethics teaching, and the structure of medical education. *Academic Medicine* 1994;69:861–71.
5. See note 1, Dzeng et al. 2015.
6. Berger JT. Moral distress in medical education and training. *Journal of General Internal Medicine* 2013;29(2):395–8.
7. Carrese JA, Malek J, Watson K, Lehmann LS, Green MJ, McCullough LB, et al. The essential role of medical ethics education in achieving professionalism: The Romanell Report. *Academic Medicine* 2015;90(6):744–72.
8. Kant I. *Groundwork for the Metaphysic of Morals*. 1785.
9. Swick HM. Toward a normative definition of medical professionalism. *Academic Medicine* 2000;75:612–6.
10. Rosenbaum JR, Bradley EH, Holmboe ES, Farrell MH, Krumholz HM. Sources of ethical conflict in medical housestaff training: A qualitative study. *American Journal of Medicine* 2004;116:402–7.
11. Ubel PA, Jepson C, Silver-Isenstadt A. Don't ask, don't tell: A change in medical student attitudes after obstetrics/gynecology clerkships toward seeking consent for pelvic examinations on an anesthetized patient. *American Journal of Obstetrics and Gynecology* 2003;188(2):575–9.
12. See note 2, Dzeng et al. 2016.
13. Hildebrandt S. Developing empathy and clinical detachment during the dissection course in gross anatomy. *Anatomical Sciences Education* 2010;3(4):216.
14. Pawlina W, Hammer R, Strauss J, Shaun G. Heath S, Zhao K, Sahota S, Regnier T, Freshwater D, Feeley M. The hand that gives the rose. *Mayo Clinical Proceedings* 2011;86(2):139–44.