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FROM THE EDITOR IN CHIEF

I Am JOE

How many people do you know whose name has five vowels and one consonant? As someone who has such a first name, I have acquired a sincere appreciation for its uncommonness. While there were many times during my childhood when I wished my name was Andy or Steve, I've never seriously considered changing my name. Therefore, the decision to change our journal name, *Virtual Mentor (VM)*, did not come easily for me. That said, the *VM* editors and editorial board believe that this new name more fully captures our subject matter and publishing roots. The new name of our journal is the *American Medical Association Journal of Ethics (JOE)*.

While our name will be different, the editorial mission of our journal remains unchanged. We are committed to helping medical students and physicians make better, more ethical decisions when confronted with challenging circumstances during the everyday course of their professional lives. This commitment is reflected in the core articles of every monthly issue of our journal—ethics cases that focus on difficult situations that a student or physician is likely to face. Each case is accompanied by expert commentaries that offer practical guidance and foster professional reflection.

Like all journal editors, we do not take for granted our independence to freely explore issues of our choosing. It is our duty as editors of this journal to shine a light on topics that sometimes will not reflect positively on the behavior of physicians and the relationship between medicine and society. If we don't illuminate these matters, we are not doing our jobs.

To *VM*'s readers, contributors, and reviewers, I appreciate your continuing support of our journal and am eager to engage with all of you as we enter the next chapter in the life of *JOE.*

As always, I welcome your comments at joe@ama-assn.org.

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FROM THE EDITOR

Describing a Culture from Within

The culture of medicine is an elusive concept; it can at once evoke images of benevolent men and women offering themselves in service of the sick and vulnerable and images of a patriarchal institution marred by elitism and the abuse of power. A complex interplay among the people in medicine, the institutions that train them, and the society within which both function contributes to these incongruous images. The culture of medicine is influenced by its rich history and the most recent trends in medical attitudes and practices. In order to portray adequately the discourse and norms surrounding the profession, we must take all of these elements into account. Perhaps one reason defining and discussing culture can be so challenging is that so much of what forms and sustains it is implicit. The culture of medicine is not only defined by what doctors do, say, feel, and think, but also by what they do not do, say, feel, or think. What one is expected to read between the lines, or to "pick up on," without being explicitly told is very much a part of medical—indeed any—culture; the norms and expectations that lie just beneath the surface can be as influential as anything codified. Thus, there can be a disconnect between what the medical field purports to do and what actually happens on the wards or in the classroom.

For all these reasons, if we are to evaluate medical culture today we have to dig past our assumptions and question the status quo. As stewards of the profession we must first recognize that a distinct medical culture does in fact exist and that none of us are immune to its influence. Next, we ought to strive for awareness of what values inform this culture, so that we can more accurately and critically examine their influences on our actions and attitudes. This theme issue of the *AMA Journal of Ethics* strives to do just that, as we take a tour of issues surrounding the established norms and expectations in medicine.

This theme issue has a special focus on medical education, which is many professionals' first introduction to medical culture. Even more fundamental, however, is the raw material upon which this education acts. We first look to the gates of the medical profession (and to its keepers), to answer the question of who gets into medical school and why. Three pieces deal with this topic.

Mark G. Kuczewski and Linda Brubaker discuss Loyola Stritch School of Medicine's recent decision to consider applications from undocumented students of DACA (deferred action for childhood arrivals) immigration status. This administrative move highlights the important role institutions can play in fostering a spirit of inclusiveness in medical culture and in listening to and responding to the needs of the communities they serve. Kuczewski and Brubaker further expand on their endeavor to implement this policy in the podcast for this issue.

Marc J. Kahn's and Ernest J. Sneed's piece on promoting diversity in medicine argues that the rhetoric about the financial burden of applying to and attending medical school may dissuade people with lower socioeconomic status from pursuing careers in medicine. Finally, Stanley F. Wainapel investigates barriers for the applicant with a disability. He points out the ways in which medical schools lag behind other institutions when it comes to accommodating students or physicians with disabilities, thereby reinforcing a narrow, outdated definition of who can become a physician.

The term "hidden curriculum" has been used in sociology to describe dimensions of medical education that are not intended or explicit. Frederic W. Hafferty, Elizabeth H. Gaufberg, and Joseph F. O'Donnell discuss the role that fashionable "on doctoring" courses have in disseminating and responding to the hidden curriculum in medical education. Martha Peaslee Levine reflects on a journal article about the powerful influence physician-student relationships have on the next generation of doctors.

Thomas W. LeBlanc further examines medical education's role in culture, critiquing the "see one, do one, teach one" philosophy. He expands the current debate about the ethics and effectiveness of this long-standing teaching strategy to how physicians learn to engage in difficult conversations with their patients. Brian Goldman argues that the slang used by medical residents reveals underlying attitudes and frustrations and urges us to use these observations to instigate dialogue about these issues instead of responding punitively.

A universally shared rite of passage in medicine is the process by which graduating medical students are "matched" with residency programs. In our law piece, Richard Weinmeyer takes us on the journey of a courageous group of physicians who sought to challenge the National Resident Matching Program in the case of Jung vs Association of American Medical Colleges.

Brandon Vaidyanathan probes medical culture more conceptually, giving us a sociological perspective on how professional cultures are communicated to new members. He explores the role of narrative scripts, imitation, and habituation in shaping and sustaining norms and values in medicine.

Finally, this month's ethics cases highlight some issues physicians face throughout their education and the ways in which the culture of medicine influences the interpretations and responses therein. Amy Blair and Katherine Wasson explore the delicate balance between showing compassion and inappropriately expressing emotions with patients. Nathan E. Derhammer comments on the complexities of attempting to accommodate residents after the arrival of a child. And Amy H. Buchanan and Aaron J. Michelfelder discuss the seemingly contradictory values of physician independence and proper supervision in residency training, explaining that attending physicians can foster both ideals.

This issue of the *AMA Journal of Ethics* calls attention to some of the many ways in which society, people, and institutions interact to influence how we perceive and practice medicine. The scope of this theme issue is indicative of the breadth and complexity of the culture of medicine. It is an invitation to reflect more deeply on the origin of our values and

the factors that sustain them so we can be certain that they are, in fact, the values we wish the medical profession to embody.

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ETHICS CASE

Professionalism and Appropriate Expression of Empathy When Breaking Bad News

Commentary by Amy Blair, MD, and Katherine Wasson, PhD, MPH

Kelsey is a third-year medical student doing rounds in internal medicine. Yesterday, she met Ms. Foster, a quiet woman who was admitted due to a bad case of bronchitis. Kelsey was asked to help prep Ms. Foster for an x-ray. At first, Ms. Foster was a little standoffish and their interactions were awkward. Kelsey decided to try and make some small talk. Noticing a picture of a Great Dane as the backdrop on Ms. Foster's phone, she asked if it was a photo of her dog.

Ms. Foster smiled. "Yes. His name is Stormy," she said.

"I have a dog too—a pit mix named Finny," replied Kelsey.

With the ice broken, they began to talk more, and soon Ms. Foster mentioned that she had two sons, Andrew and Stu. Stu, the older, was nervous about starting high school. "I just hope I'm better by the end of the week so that I can be there when he comes home from his first day," Ms. Foster admitted nervously.

"We'll do all we can to help make that happen," Kelsey assured her. By the time Ms. Foster was ready for radiology, she seemed to be in a better mood, and she thanked Kelsey for talking with her.

The next day, Dr. Baum, the attending physician for Kelsey's internal medicine unit, approached Kelsey as she was prepping for rounds. "The x-ray of the 48-year-old woman with bronchitis showed some suspicious masses, so I sent the images to radiology for a second opinion, and they confirmed what I feared. There is a 5-centimeter mass in her right lung and two smaller masses in her left lung." Kelsey's heart dropped. She knew what this meant: late-stage lung cancer. "Of course, I will want to confirm with a CT scan and biopsy, but today we have the difficult task of informing Ms. Foster of what we suspect we have found and what the next steps are."

Feeling five times heavier than she had that morning, Kelsey followed Dr. Baum into Ms. Foster's room. There were fresh flowers on her nightstand with a note signed, "Your favorite boys." Ms. Foster lit up at the sight of a familiar face, and Kelsey felt that her heart might burst.

Dr. Baum took a seat beside the bed, and Kelsey followed. After the preliminary greeting, Dr. Baum gently cleared her throat and began, "I saw some suspicious masses on your x-

ray yesterday that could be cancerous." She paused a while before continuing, "I'd like to order a CT scan so that we can learn more."

Ms. Foster sat for a while in stunned silence and then began to cry. Tears ran down Kelsey's face as well, and, overcome with sympathy, she reached for Ms. Foster's hand and began to rub it gently with both of hers.

After answering Ms. Foster's questions, Dr. Baum and Kelsey left the room. As they walked down the hall together, Dr. Baum turned to Kelsey. "Kelsey, it's all right to feel sympathy for patients, but you crossed a line there. Crying can detract attention from the patient, and some patients do not like to be touched. It's natural to want to help patients, but you need to learn to channel that energy into being a good practitioner and leave the more personal comforting to family and friends." Then, more gently, she added, "It will get easier over time. As you see more and more, you won't feel the emotions as much."

Commentary

Breaking bad news empathically to patients requires recognizing signs and patterns from patient cues, and the set of potential responses is as broad as a good differential diagnosis. As a physician, you need to note the patient's affect as you walk in the room. Does her face indicate a sense of dread? Does he seem determined? Does her greeting indicate all is well and that the information you hold will be unexpected? These cues should guide your response. It may be best to present information bluntly to relieve the tension an anxious patient displays. Other times, taking a gentler approach is better. Moving tissues closer to the patient communicates that he or she may need to be prepared for bad news, that it is acceptable to show emotion, and that you as a physician are open to whatever response he or she might have. You should also be attuned to your own emotions and recognize the role emotion and empathy play in clinical practice.

In this case, Dr. Baum's belief that Kelsey is behaving inappropriately originates from concern for the patient. If Ms. Foster had been uncomfortable with Kelsey's tears, the focus in the room would have shifted from the patient to the medical student. Kelsey, on the other hand, formed her response based on extra time she had spent with Ms. Foster. Dr. Baum was not present during those interactions; she did not see the change in Ms. Foster's demeanor while Kelsey was prepping her for the x-ray. Kelsey found that Ms. Foster responded to a more personal approach, that engaging her about her dog and family helped her relax. Dr. Baum may have missed important clues to the ways Ms. Foster wanted and needed to hear bad news. So, perhaps Dr. Baum's impression is that Kelsey does not know Ms. Foster well enough and that Kelsey's reaction is self-centered and lacks self-control.

This situation occurs frequently in medical schools. How many times do physicians in training enter a room, especially that of a hospitalized patient, and know the patient's personal history in more detail than the rest of the team? Even with their clinical inexperience, medical students who spend more time talking with patients may have a better "feel" for a patient's personality and reactions than more experienced clinicians who have barely spoken with the patient.

Dr. Baum appears to believe there is a clear boundary between appropriate and inappropriate emotional responses that is the same with all patients. Crying in the room with patients could be intrusive, especially if it makes the patient feel worse. What if the patient thinks a physician's tears reflect hopelessness from a medical perspective or that the physician is overemotional, unprofessional, or imbalanced? These are all plausible interpretations of a physician's tears. Is it not best to avoid crying altogether?

Kelsey also chose to rub Ms. Foster's hand. Many physicians find touching a patient's hand or shoulder to be a natural response. "Clinical" touch is an expected part of the patient-physician relationship because of the physical exam, and patients usually trust physicians to use physical touch for diagnostic purposes. But the intimacy of rubbing Ms. Foster's hand may also jeopardize that trust. It is significantly more personal than the clinical touch, and it is plausible that Ms. Foster could interpret that action as intrusive. Whether because of experiences during training or her own emotional development, Dr. Baum may value emotional detachment. Learning and maintaining professional boundaries can easily turn into learning and maintaining detachment, which can be further rewarded when detachment is perceived to be synonymous with rationality and clinical objectivity. Additionally, there may be incentives for women to display detachment at all costs to combat the stereotype that they are excessively emotional.

Dr. Baum may also be making a genuine attempt to mentor Kelsey on emotional survival and navigating the range of emotions experienced during interactions with patients. Physicians can be witnesses to significant physical and emotional suffering and are vulnerable to their own intense emotions. The key is to acknowledge that emotions are a part of the profession and to understand and use the patterns in those emotional responses. Assessing your emotional reactions can prevent desensitization to patient relationships and even promote the joy of patient care that often draws physicians to the practice of medicine. Effective strategies for such assessment after intense patient encounters can include personal reflection, debriefing through talking with family or friends, or decompressing through hobbies or relaxation.

Dr. Baum attempts to prepare Kelsey by telling her that this will be a "difficult task," alluding to what must be previous experiences with delivering undesirable news to patients. Just as physicians build their clinical diagnosis skills based on prior patient presentations, so through interacting with patients they build a repertoire of communication strategies and emotional responses to patient cues, including reflective listening, pauses, or silence, as well as letting the patient know he or she is not alone ("I have another patient who had this diagnosis…"), humor, or encouragement. It is plausible that Dr. Baum developed the strategy of leaving the "personal comforting to family and friends" after difficult experiences in the delivery of bad news or seeing other physicians do so during her training, just as she applies prior clinical experience to current cases. Perhaps it is the feelings of loss after the death of a patient similar to Ms. Foster that are guiding her responses and views. Without strategies to process the losses that occur in patient care, Dr. Baum may have concluded over time, perhaps unconsciously, that it is better and less risky to try to keep empathy out of her relationships with patients.

Processing emotional loss requires a great deal of energy and time that, for many physicians, is not readily available. Residual woundedness left by unprocessed grief and other emotions can compound. To survive emotional injury, many physicians develop conscious or unconscious coping strategies—using a closed rather than open emotional approach to patients' responses, becoming less aware of the verbal or nonverbal cues that may indicate a patient desires a more personal approach, or shuffling the job of meeting patients' emotional needs to other members of the team or patients' families.

So, rather than being a cold, heartless teaching, Dr. Baum's admonition to Kelsey may reflect genuine concern: that if Kelsey cries with patients, Kelsey will suffer from emotional exhaustion, compassion fatigue, and possibly burnout. Her words for Kelsey are intended to help her "not feel the emotions as much." She could be trying to spare Kelsey the painful process she has experienced or seen others go through to try to manage the emotions involved in patient care.

The ideal way to respond to each patient's emotions is different and requires mindfulness and experience; this is especially challenging for students who desire a sense of the "right way" to provide good care. They often want a rubric or algorithm to guide their interactions and decisions that parallels the diagnosing of diseases. This is understandable, and we may be able to develop some best practices for expressing empathy and managing emotions with patients.

1. Be open to the unpredictable nature of human emotion. Expect emotions to be present in your interactions with patients and their families. Practice how to be more comfortable with patients' and your own emotions through methods such as role play with fellow medical students or debriefing with friends or family.
2. Meet the patient's emotional response in ways that still feel professional. Do not feel afraid of emotions expressed by patients; they are not requirements for reciprocal responses. If it is not natural to you to show emotions openly or use physical touch to communicate, it is important to find other ways to acknowledge that you are witnessing the patient's emotion and that you care about it. This can be done through sincere statements such as, "Ms. Foster, this is very hard" and handing a crying patient a tissue box.
3. Find effective ways to process emotions that are experienced with patients. These can include briefly acknowledging with the team the emotions felt by patients, yourself, and others. One medical student gave us the example of an attending physician who, after a patient died, simply said, "I'm really sad we lost that patient." It was a brief but clear acknowledgement of his emotions and allowed others to acknowledge theirs.

All too often the patient simply disappears and another appears in that bed without anyone even talking about the death. These responses—or lack thereof—send the message that there is no time and no need to even mention the death of that patient. Medical students and residents quickly pick up these messages and may think they are the only ones affected by the death and that they should not talk about it or express any sadness. Physicians may also be slow to acknowledge positive emotions when patients do well or they have a positive encounter with them. Acknowledging the emotions involved in

the clinical encounter can help physicians respond appropriately and maintain empathy throughout their careers.

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ETHICS CASE

Paternity Leave in Medical Residency

Commentary by Nathan E. Derhammer, MD

Matt is in his second year of residency, as is his wife, Julia. They welcomed a new baby girl into their family just two months ago. Julia had a difficult pregnancy and had to be put on bed rest for two weeks prior to her delivery. Her department advised her to use her vacation time for this bed rest in order to finish her training on time and acquire the experience necessary to score well on her boards. She had originally planned on using it to extend her maternity leave an extra two weeks, but, worried about meeting her program's requirements and creating resentment among her fellow residents, she decided to return to work after the six-week period. The weeks immediately following her delivery were enormously difficult for Julia, as she tried to take care of a newborn while recovering from a complicated pregnancy. During this time, Matt wanted to take time off to help care for the baby and help Julia, so he requested paid paternity leave from his program. The program denied his request, and Matt and Julia decided it would be best for him to save his vacation and sick days for future emergencies, since Julia had used all of hers.

Dr. Smith, an attending physician in Matt's program, took notice of his situation, thinking that the residency program could have done more. Being a member of the graduate medical education committee (GMEC), he initiated an action to establish a paternity leave option for residents. The proposal sparked heated debate among committee members. Some agreed with Dr. Smith, pointing out that residents in other countries are given more generous options when starting a family, that the number of residents having children is increasing, and that these residents should be given more options and flexibility so that they can lead the balanced lives that will help them be better physicians.

Dr. Smith proposed that, until the number of paid residency positions was expanded by the federal government, the program should put pressure on the hospital to hire more physician assistants and nurse practitioners to cover for residents on maternity and paternity leave. His opponents argued that his proposal was unrealistic and that, even if it were possible, it would send a message to the hospital and to the public that doctors can be replaced by people with far less training.

Commentary

Residency is a rigorous, highly formative stage of professional development for physicians. Within a few years (the particular number is determined by specialty), resident physicians must acquire the practical knowledge and experience to practice competently within their chosen field of medicine. A significant component of this experience is acquired by delivering appropriately supervised patient care at a sponsoring institution. As a result, resident physicians are in the unique position of being both trainees and employees.

As employees, resident physicians are entitled to salary and benefits. Although far from lucrative, paid work as a resident is often a welcome change from the debt-accruing years of medical school. For many young physicians, particularly those without a significant employment history, access to health insurance and other employee benefits at their training institutions is novel and not always well understood. Of particular relevance to the topic of our case, employment provides resident physicians the opportunity for protected leaves of absence through the Family Medical Leave Act (FMLA) [1]. The FMLA covers parental leave within the first year after the adoption or birth of a child, with continuation of health benefits, which is particularly advantageous to a new parent. It is important for residents in particular to understand that unpaid leave (i.e., any weeks beyond vacation time, sick days, and discretionary time) can impact the length of their training.

Resident physicians must complete an accredited residency program to be eligible for board certification in their specialties. Although the recent transition to a milestone-based (rather than competency-based) evaluation process may have future implications for flexibility in length of training, residents taking a leave of absence now must comply with existing accreditation and certification requirements [2]. For example, trainees in procedure-based residency programs are subject to strict requirements regarding the performance of a set number of core procedures. Trainees in non-procedure-based programs must fulfill a required amount of time in particular hospital units and specialties to complete their training. The fulfillment of training requirements often determines how long residency training will need to be extended for a resident who has taken a leave of absence.

Another issue is that, given the varied and specific educational requirements of training programs coupled with the institutional patient care needs met by resident physicians, resident scheduling is a highly complex endeavor. Residents on leave do not participate in overnight call, nightfloat, weekend coverage, or the jeopardy/emergency coverage system. In a resident's absence, scheduling—and, ultimately, patient care—needs are met by his or her peers. Generally, the seamlessness of an individual resident's absence is directly proportional to the amount of forewarning program leadership receives. Predictable leaves of absence are most readily accommodated through early communication.

In our case scenario, Matt should have applied for FMLA leave as soon as possible. Because his request would have been made with less than the preferred 30-day advance notice, he would have needed to assist in establishing coverage of his patient care responsibilities through whatever emergency call-in protocol is used by his residency program. The amount of Matt's "paid paternity leave" would have been determined by his remaining vacation, sick, and discretionary days for the academic year, but his total FMLA leave could not exceed 12 weeks in a 12-month period.

As opposed to acute medical illness or unexpected tragedy, becoming pregnant is often a joyous, carefully premeditated life event and—thanks to a mechanism that is fairly well understood by today's medical students and residents alike—relatively predictable in its occurrence. Of fortunate benefit to those who may experience the miracle of life in a more surprising fashion, the extended and biologically consistent period of human gestation

often allows adequate time for tailoring of a resident's schedule to comfortably accommodate a baby's arrival and a subsequent leave of absence. The earlier a resident parent-to-be communicates with the program director or chief resident, the more flexibly a schedule can adjust to gestational variability or other unanticipated complications. Earlier schedule changes are less bothersome to peers in training and, therefore, highly unlikely to be met with resistance or consternation. Julia and Matt's predicament is partially due to a lack of appreciation for the gravity of childbirth (and maternal recovery), as well as the parental demands of early infancy. Earlier discussions between Matt and his program director might have created a more favorable climate for short-notice leave.

But we should not consider Matt's request for paternity leave inappropriate. In the era of duty-hour reform and physician burnout awareness, medicine has made important cultural strides towards recognizing the value of maintaining balance between professional and personal life. Additionally, it is impossible to ignore the fact that—much to the perceived disbelief of our predecessors—the joyful and sometimes tragic unpredictability of life is not suspended during residency (or medical school, for that matter). The medical community has also come to acknowledge the vocational value of life-shaping events. There is general understanding that experiencing loss, overcoming acute illness, and coping with chronic disease are all examples of formative experiences that deepen a physician's empathy and overall emotional intelligence in delivering patient care. Similarly, the rite of passage into parenthood is associated with uniquely challenging (but amazing) maturation, vulnerability, and perspective that enrich one's insight as a clinician. While the logistical challenge of accommodating leaves of absence requires careful planning, residency programs are well-equipped to meet the needs of their trainees, including those individuals choosing to become parents.

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ETHICS CASE

Balancing Supervision and Independence in Residency Training

Commentary by Amy H. Buchanan, MD, and Aaron J. Michelfelder, MD

Chad is in his first year of residency in emergency medicine. He is working a night shift when a woman brings in her four-year-old daughter suffering from a high fever and ear pain. Chad decides to give the girl ibuprofen, start her on a course of antibiotics, and keep her under observation. Over the next couple of hours the toddler's condition seems to worsen, and Chad worries that she might have something more serious than a middle ear infection, such as meningitis, which would require a spinal tap to rule out. He considers phoning the physician on call, Dr. Gardner, but hesitates as he picks up the phone. It's late at night and he doesn't want to wake the doctor for what could be a trivial matter. "And I don't want to come across as incapable of making my own decisions," he thinks to himself.

A while later, he still feels unsure about what to do, so he calls Dr. Gardner. After hearing a summary of the situation, she tells him, "It's most likely a typical ear infection; sometimes they just take time to clear up. I would just wait and watch her."

After putting down the phone Chad feels more conflicted than before. His young patient looks worse than other patients he has seen with ear infections, and he has a strong suspicion she may have something more serious; however, doing a spinal tap now would be ignoring Dr. Gardner's advice. An hour later he decides to perform the spinal tap anyway, reasoning that, after all, this child is his patient and, ultimately, his responsibility. After reviewing the procedure briefly, he performs the tap with the help of a nurse and without complications. The results of the test come back negative, ruling out meningitis. Chad knows that he ought to feel relieved that the child is all right, but he is also disappointed to find that his instinct was wrong. He took a risk by going against Dr. Gardner's advice, and the results now indicate that it might have been better to have followed it.

When Dr. Gardner arrives in the morning she looks over the girl's chart and takes note of the negative spinal tap. She is aggravated that Chad chose to perform an invasive procedure, with its own set of risks, against her advice. "These young doctors always jump to rare and dire diagnoses, when most cases turn out to be as obvious and simple as they seem," she mutters to herself, wondering why, if Chad was still worried after their conversation, he didn't call again or ask for a consult from a doctor working last night. After the initial wave of annoyance passes, she considers another point: Chad needs to develop his own professional identity and she wants to encourage him to have confidence in his own clinical knowledge. She wonders how her reaction would have been different if the spinal tap had come back positive.

Commentary

For any physician, the above scenario most likely sounds familiar. We can all recall moments during our training, either as a medical student or resident, in which our assessment of a clinical situation differed from that of our supervising attending physician. We understand the feelings of uneasiness and discontent that Chad, the resident in the case, must have felt, along with his desire to help his patient and exercise a bit of independence. Likewise, physicians who have chosen a career in academic medicine can easily empathize with Dr. Gardner, the attending physician, who is trying to balance patient care with resident education and maintaining control, all the while judiciously giving residents a bit of freedom. At the heart of this case is the struggle to maintain that balance, and we argue that the key to achieving it is mutual trust.

Educating future physicians is a daunting task, and attending physicians in academia need to fully understand the awesome gravity of the responsibility with which we have been charged. The Accreditation Council on Graduate Medical Education (ACGME) has much to say about how to do this in its 2011 publication on duty-hour standards [1]. Chapter 6 in particular offers commentary and guidance on resident supervision. In general, the ACGME asserts that faculty should provide enough supervision and oversight to ensure safe, effective patient care while giving residents increasing independence and authority. Do this, they imply, and we can turn fledgling, novice interns into confident and competent practitioners.

It may seem that proper supervision and independence of residents are mutually exclusive. For the anxious, overbearing attending physician or the overly confident, eager resident, this is most certainly the case. Neither wants to give the other their trust or cede control. With these two players, effective medical education hits a brick wall built of ego, fear, distrust, and frustration.

The ACGME's publication notes evidence that there are dire consequences if we fail to provide both supervision and independence [1]. Appropriate supervision of resident learners is absolutely critical to patient safety. The authors cite several cases of inadequately supervised residents associated with adverse outcomes in teaching hospitals, none more familiar to medical educators than the 1984 death of Libby Zion. Her untimely death under the care of unsupervised first- and second-year residents led to the establishment of regulations governing resident work hours and supervision standards.

On the other hand, excessive supervision leads to problems, too. Supervision without progressive independence may stunt residents' acquisition of knowledge and skills and ultimately hamper their progression to competency in their fields.

Luckily, supervision and independence of residents are not mutually exclusive. They can occur in harmony if residents and supervising physicians are willing to communicate openly, give frequent feedback, and allow trust and respect to guide their interactions.

This balance between supervision and independence must be maintained throughout a resident's tenure but tends to look different at different points in time. It may seem obvious, but the ACGME points out that the interns, or first-year residents, require the

highest level of supervision, most often direct supervision from a faculty member who is physically present. This may seem suffocating to residents looking to stretch their wings. However, with time and experience, the balance evolves. If an intern is able to master relevant skills as well as demonstrate that he or she can responsibly recognize the limits and scope of his or her authority, the intern should be granted increasing independence. When mistakes or errors occur, as they inevitably will, that independence should be curbed for a time during which feedback and remediation, if necessary, are given.

This ebb and flow of control makes logical sense and, to the players, feels appropriate as well as judicious. It should reassure supervising physicians that no residents are left to their own devices until they have achieved some level of competence in clinical care. It should also appease eager residents because independence will be awarded to them if they work hard, follow the rules, and accept guidance from faculty.

As previously stated, trust is key to balancing these two tasks. Our residents need to trust that their supervising attending physicians will provide effective teaching, guidance, and feedback, as well as more independence once they display increasing mastery of concepts and skills. They also need to trust that their supervising physicians will welcome their questions, be happy to receive late-night calls, and be available in person to assist directly with patient care when appropriate.

We expect that Chad in our case was, to some degree, worried about getting exasperated or unhelpful feedback if he called Dr. Gardner back to voice his concerns about the young patient. Perhaps this expectation was a barrier to effective communication with his supervisor and thus led him to act alone and perform the lumbar puncture against instruction. Nonetheless, as an intern, Chad must understand his limits and recognize that he should respect the experienced opinion of his attending physician in this instance. Acting against her wishes represents a breach in the trust inherent in their relationship, and doing an invasive procedure without supervision could have put the patient at risk.

Supervising physicians certainly need to do their part. They need to teach, offer guidance, and give feedback happily, any time of day or night. They also need to encourage teamwork skills and remember that many decisions in medicine are not black and white. Allowing a resident to do things his or her own way, even if it is in contrast to the supervising physician's own preference—as long as it does not harm the patient—is valuable for the resident's emerging independence and leadership. In exchange, supervising physicians earn the right to feel reassured that their residents will honestly and effectively communicate clinical information, understand their limitations, and defer significant patient care decisions for the good of patient safety. In our case, Dr. Gardner has the right to be upset with Chad: he overstepped his bounds, acting against her directives. She would be wise to discuss this egregious misstep with him to ensure it does not happen again.

However, Dr. Gardner could have taken a different approach altogether. Even though she thought a lumbar puncture was unnecessary and the patient simply had an ear infection, she could have reassured Chad that he was welcome to call again should the situation change or he continue to have doubts regarding the diagnosis and plan, thereby keeping lines of communication and trust open. Additionally, she could have offered to come into

the hospital to evaluate the patient in person to alleviate Chad's worry and discuss appropriate indications for lumbar puncture. If they decided that a lumbar puncture might be useful, Dr. Gardner could have assisted and supervised Chad during this procedure.

This case poses an additional interesting question about whether Dr. Gardner's response would have been different if Chad's instinct had proved correct and the lumbar puncture was positive for meningitis. Although Dr. Gardner would have certainly felt relieved in this instance that the patient had been appropriately diagnosed, the same feedback regarding overstepped bounds, disobeying directives, and the need for trust would be relevant. Furthermore, for an open-minded instructor, this incident might just represent a turning point in Chad's evolution as a learner. If he had been correct about the meningitis, after all, he would have displayed competence in patient care and a spot-on sense of instinct. In that case, Dr. Gardner should consider recalibrating how much independent authority he merited in light of the skills he displayed.

In summary, effective resident education requires an appropriate balance of supervision for the sake of patient safety and progression towards independent authority and leadership for the sake of the resident's professional growth. This balance is difficult to achieve, should be individualized for each learner, recalibrated often, and is only possible when mutual trust exists between resident and supervising physician.

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CONLEY ESSAY CONTEST

2014 Winning Essay

Redefining Professionalism in an Era of Residency Work-Hour Limitations

William Malouf

Jake arrived home from the hospital and said to his wife, Emma, "How should I deal with this?" He waved several sheets of paper in the air before letting them drop on the desk where Emma was working. "It's a 360-degree performance evaluation of interns, so they're asking us to evaluate our peers."

"Glad we don't have that in surgery." Emma said. "You medicine docs are so...."

"Yeah, yeah. I know what we are. That doesn't help me. I have to rate Alex's performance, and I'm not even certain how I feel about what he does, let alone how to complete this evaluation."

Jake and Alex were interns in Riverside Hospital's internal medicine residency program. Almost since day one, Jake had complained to Emma about Alex's way of doing things. At first, Jake had chalked it up to the enormous difference between being a med student and being an MD. In the beginning, it was an ordeal for interns to retrieve the needed clinical facts in a moment and to manage the overwhelming amount of work in the closely monitored shift time.

That was six months ago. Now Alex's "style" (Jake thought that was a neutral way of putting it) was more than annoying, and Jake was resentful. Whenever Alex signed out to Jake, Jake would be faced with a long patient-related to-do list that Alex had not completed before his shift came to a close: check and enter lab results for Patient A; accompany Patient B to CT imaging; follow up with Dr. C who did the pulmonary consult for Patient D; enter more complete chart notes for Patients E and F. Jake was behind before he began. He never got to the list of tasks he needed to perform with and for his patients.

Alex was not incompetent; he knew his stuff, had good rapport with patients, and was liked by patients and staff. The one time Jake had mentioned his distress over the amount of work Alex left behind, Alex had said in a friendly enough way, "Hey, ya know, I work hard during my 8 hours on, spend time with my patients, and get as much done as I can. I didn't set these work hours, but I have to stick to them. You should look at it that way, too, man. Work hard, do what you can, and pass the rest on. That's obviously what they want these days. They're not asking us to be 24/7, superhuman doctors anymore." As he walked away, Alex had said, "Get a life, Jake."

"Signing out such a long to-do list wouldn't be tolerated by surgery housestaff," Emma said, raising an eyebrow. "So what are you going to do?"

She heard Jake mutter, "About Alex or about myself?"

Response

The "age of the giants" has passed. The idea of larger-than-life doctors devoting themselves completely to patient care and sacrificing their personal lives in the process is giving way to an era of recognizing limits to a physician's work life. This change in attitude has been advanced, in part, by resident work-hour restrictions [1, 2]. These restrictions have also generated fears that the restructuring of resident education will lead to the loss of traditional physician values. Long, grueling work schedules have often been defended as necessary for imbuing new doctors with a strong sense of accountability and professionalism. However, due to new restrictions, it has become impossible to both comply with work-hour limitations and demonstrate a traditionally defined work ethic. Residents are, in fact, confused about what is expected of them in this new system of limited shifts and frequent patient handoffs [3]. This confusion is challenging the medical community to redefine traditional beliefs about physician responsibility for patients [1, 2, 4].

Distress about the loss of traditional values is not the only challenge facing residents today, however. Limitations on resident work hours have not been matched by limitations on resident workload. In fact, a 46 percent increase in admissions to teaching hospitals over roughly the past 20 years and a concurrent increase in intensity of care per admission have given residents more work than ever before [5]. Time restrictions compress this work until residents must maintain a frenzied pace in order to stay on top of their responsibilities [6].

Residents thus face the impossible challenge of reconciling the traditional work ethic with strictly limited work hours, which is the problem confronting Alex and Jake. Alex has clearly interpreted the new limitations on work hours as a negation of traditional personal accountability for all follow-up to patient care. In his view, the new professionalism is defined as simply working as hard as one can for the duration of a shift. This conception of professionalism lacks a sense of "ownership" of patient care, and Jake questions it. Indeed, it raises important questions. Have we lost important values in our transition to more humane resident schedules? Have we gone too far in trying to strike a balance between physicians' personal and professional lives? What happens to ownership of cases?

Beneficence and Physician Self-Care

Although duty-hour restrictions seek to improve residents' quality of life, it is useful to remember that these restrictions arose chiefly from concerns about patient safety. Studies have associated an increased risk of medical errors with greater shift length [7, 8]. Additionally, the case of Libby Zion—who died under the care of a resident physician at New York Hospital in 1984—and the subsequent Bell investigation suggested that resident overwork and fatigue could be associated with detrimental effects on patient care [2].

However, long work hours and a disregard for the physician's quality of life were traditionally seen as expressions of altruism and self-sacrifice, which are central values for the medical profession [4]. A demanding work schedule constituted an essential part of the "informal curriculum" of residency, in which residents learned that their personal lives were subordinate to their professional responsibilities [9].

But just as altruism and work ethic are core values of medical professionalism, so are compassion and empathy. As Michael J. Green writes, "to care for [chronic] illnesses, compassion and empathy are at least as important as stamina and self-sacrifice" [10]. Is it realistic to expect all physicians to sacrifice personal well-being and still serve all their patients well? Medical students' and residents' decreasing empathy scores with each year of training [11] suggest that overworking trainees can drain them of their compassion and drive. The traditional expectation that physicians disregard their own quality of life ignores the fact that emotional and physical fatigue can be a serious detriment to patients as well as physicians. Residents and surgeons who meet criteria for burnout are reportedly more likely to make errors [7, 11-13]. And a 2002 survey of one prominent US program found that as many as 76 percent of the internal medicine residents met criteria for burnout [12]. Clearly, the values of altruism and self-sacrifice should be tempered by concerns about self-care.

It is obvious that Alex has accepted the fact that physicians must recognize their limits. In his words, "they're not asking us to be 24/7, superhuman doctors anymore." Yet Alex must remember that this transition to a more humane work schedule was motivated by a desire to create a safer environment for patients. Although giving residents more rest may prevent errors caused by fatigue, shorter shifts also increase patient handoffs, which can become a new source of errors and poor patient care. Jake has taken issue with the amount of patient-related work that Alex passes on, but Alex clearly does not see this work as part of his responsibilities. Who is responsible for ensuring safe patient handoffs in this new era of resident education? If residents can no longer maintain full control of a given patient's care, who will be responsible for making sure everything is being done for that patient?

Patient Ownership

The term "patient ownership" denotes responsibility and accountability for all aspects of a single patient's care. Long work schedules have been defended as necessary for the development of this sense of devotion to patients [4]. One of the unintended consequences of work-hour restrictions may be a decline in this important, traditionally held value [9]. A 2012 survey of surgery residents found that 86 percent of second- to fifth-year residents in one program believed that there was a decreased level of patient ownership after the institution of the 2011 duty-hour restrictions [14].

This belief is understandable considering the increase in handoffs of patients from one resident to another during shift changes. Frequent handoffs not only increase the risk of communication errors but also discourage any individual resident from viewing a given patient as his or her personal responsibility. The excuse "that's not my patient" has become a frustratingly common refrain for residents who are unfamiliar with a patient

under their care [1]. Shift restrictions now mean that residents are not available to their patients 24/7.

Patient care has become more team oriented and systems based [1, 2, 4]. Duties are delegated and doctors participate as members of a team. Attitudes towards professionalism, however, have not yet been reconciled with this new team-based reality. Our ethical obligations should reflect the fact that all members of the team caring for a patient share ownership of and accountability for that patient. In this new era, communication and leadership must become at least as important as altruism and self-sacrifice.

It is clear that those with a traditional view of professionalism would strongly disapprove of Alex's behavior. In many ways, Alex is the stereotype of what many professionals fear physicians might become—well-trained technicians with no sense of accountability. He lacks the team focus that would allow responsibility and accountability to persist in this new era of duty-hour limitations. Alex should view himself as a member of a team, and, when Jake identifies a potential problem, they must work together with their team to decide how to address his concern. Their responsibilities are no longer limited to just their own actions during their shift; each team member has some responsibility for how the team is operating as a whole.

The Team Mindset

The overflow of work on Alex's to-do lists is not solely caused by new resident duty-hour restrictions. A higher patient load, increased severity of cases, and greater responsibilities for documentation and coordination contribute greatly to the overwhelming work that Alex and Jake face. Even if their shift lengths were not restricted, it is doubtful they could individually deliver every aspect of patient care. Therefore, if duty-hour restrictions were not an obstacle, ideas about professionalism would still need to be revised to reflect a more team-oriented view. In the face of this new reality, we must share accountability and problem-solve as a team.

It is therefore the responsibility of both Alex and Jake, as well as the rest of their team, to decide upon the appropriate amount of work to pass on at the end of a shift. This is not an insignificant question to answer; interviews with residents after implementation of duty-hour limitations have indicated that concern about delegating unfinished work is common [3]. If Jake cannot start his work because of Alex's extensive patient-related to-do list, then clearly a solution must be found. However, finding this solution is not only the responsibility of Jake or Alex; it is a responsibility shared by everyone on their team, since it is the team that is ultimately accountable for the care of their patients.

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MEDICAL EDUCATION

The Role of the Hidden Curriculum in "On Doctoring" Courses

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In this paper, we briefly examine the role of the hidden curriculum (HC) in a particular type of medical education format: the "on doctoring" (OD) course.

Background: The Structure and Function of "On Doctoring" Courses

Although no description currently exists in the medical education literature on the emergence, content, and purposes of OD courses, this somewhat new addition to the formal compendium of undergraduate medical education does have a considerable Internet presence. Searches for "on doctoring" courses (along with associated terms such as "art of medicine," "art of doctoring," and "physicianship") reveal that a number of medical schools have adopted such an educational vehicle.

While the content and length of OD courses can vary by school, the following description from the Geisel (Dartmouth) Medical School is not atypical in form or content.

> On Doctoring is a two-year course that provides an understanding of the role of the physician in the clinical setting and in the community through longitudinal clinical and small group learning experiences in the first two years of medical school. During the first year, the course will focus on patient interviewing, physical diagnosis, physical exam, patient write-ups from student's [sic] clinical encounters, clinical reasoning, and developing the doctor-patient relationship. The second year builds on these skills with additional course work and a higher level of learning [1].

In addition to this formal description, Geisel details several course objectives (e.g., patient interviewing, physical diagnosis, oral presentations and clinical write-ups, doctor-patient relationship), along with a list of course requirements/expectations (e.g., "Taken a focused history of a standardized patient that is recorded and observed by the facilitator") that need to be met before students can move into the second year [1].

For comparison, Alpert Medical School at Brown University formally describes its OD course as follows:

> Doctoring is a two-year required course intended to teach the knowledge, skills, attitudes, and behaviors of the competent, ethical, and humane physician [2].

The widespread presence of OD courses today stands in some contrast to the more "traditional" ways that doctoring has been taught in US medical education. In the "old days," training was mostly informal and ad hoc, although students often received a brief bridging course near the transition to their clinical years. Often, these were called "physical diagnosis" courses, with the name reflecting the content being emphasized. Conversely, subjects such as interviewing and communication skills, write-ups, presentations, patient expectations, and other important elements of clinical practice received relatively little attention. Sometimes, individual clerkships would include an introduction to the service, but the bulk of student learning occurred "on the go." In sum, learning was predominantly experiential, idiosyncratic, context-dependent, and serendipitous. You saw what you saw, you learned from these experiences, and most importantly you learned that there was not just "one right way" to do things.

Today, most medical schools provide their students with considerably more formal instruction on a range of clinically relevant topics including professionalism and how to take a history, conduct difficult conversations, and do a physical exam. The intent behind this shift is described by one medical student in an OD blog:

> In the past, this kind of "non-textbook" knowledge was never formally taught—you learned, on the go, on the floors of the hospital. Nowadays, with a renewed emphasis on patient centered care, medical schools are trying to better prepare students before they encounter real patients [3].

The issue, however, is not just about something being formally taught in one setting versus experienced in another. Consider the following string of quotes, taken from an online forum on "on doctoring," which can be contrasted with both the above blog description and the OD objectives specified by Geisel and Brown. Here, the picture is less flattering to OD, with students taking away a variety of other-than-positive messages about their experiences. The quotes are excerpted from a longer list of responses to the question "Does your school have a 'doctoring' course?"

Some comments focus on the idea that OD material is obvious and hardly needs to be taught.

> It's fun learning to interview for the first time, but after a while, doing all the various topics is pretty much a waste of time. It's mostly just obvious stuff (don't hit on the teenage girl even if she comes on to you, don't refer to people by racial epithets). Being able to apply the stuff when you volunteer at clinics is fun though [4].

Other comments stress the inauthenticity of the learning experience.

> yes. i thought it was going to be my favv course but I was mistaken! interviewing "actors" in front of big groups while being thrown into scenarios where there are always hidden agendas that you need to uncover is a bit excessive [4].

Some students contrasted OD courses with the academic demands of the overall curriculum and how those broader, "more basic," or "more important" demands trump the intended lessons of OD…

> I enjoy it too, but I think we devote entirely too much time to it (2+ hours weekly) and it takes away from academics because on "doctoring" days we don't have science lectures [4].

> Our school has "doctoring" every Friday...which means we basically have a 3 day weekend every single weekend. It's awesome for morale, but terrible for academics [4].

…along with the description of a "helpful" (if unwitting) faculty member who inadvertently kept reminding students that they were wasting their time.

> The professor begins every other sentence with "I know this is common sense but..." [4].

Although it might seem odd that doctors-to-be would so roundly criticize a course that supposedly is teaching them clinical skills, it is important to recognize as we move into a discussion of the hidden curriculum that these student reactions, rather than being idiosyncratic or ad hoc, reflect a basic set of messages students receive from the milieu of their school, i.e., that the "real" task at hand is to pass their basic science coursework and that the important clinical exposures will come later in their training. In this respect, students are picking up a variety of "lessons" about what is and is not important to their status as student learners and future doctors—messages that will not be found in any course outline, list of course objectives, student handbook, or medical school mission statement. In addition to formal or intended curriculum delivered by faculty, all medical schools contain a range of more tacit and subterrestrial types of lessons, lessons that often are subsumed under the label "hidden curriculum."

The Hidden Curriculum

The hidden curriculum can be broadly defined as the attitudes and values conveyed, most often in an implicit and tacit fashion, sometimes unintentionally, via the educational structures, practices, and culture of an educational institution. Within this definitional framework, studying medical education means, above, all, embracing the importance of context. All relationships, from the dyad to entire societies, take place within an array of environmental factors that can influence, sometimes profoundly, what is happening within the particular situation we seek to understand.

One of the most foundational axioms of an HC-awareness perspective is that teaching is not the same thing as learning. While this point seems quite commonsensical today, it was not as universally accepted when discussions about the HC begin to infiltrate medical education circles in the early 1990s [5]. Prior to this time, there was a widespread belief that medical education could be adequately understood by focusing on what a school officially said it did, including courses taught and clinical experiences offered—in HC parlance, the "formal curriculum." For example, for most of the twentieth century,

accreditation decisions made by the Liaison Committee on Medical Education (LCME) focused almost exclusively on what schools formally stated they were doing—things like course content, hours and requirements, along with student evaluations of those formal offerings. How well students might be learning, including factors that might accelerate or retard that learning, were not part of the evaluation equation. In effect, the LCME accreditation process tacitly told schools that "seat time" was more important than what trainees were learning or the actual competence of their graduates. Having enough hours of anatomy or seeing the requisite number and type of patient were the operative metrics de jour. Alternative framings such as "competencies" (e.g., behavioral outcomes of educational practices) were not part (as they are now) of the educational lexicon [6].

A second principle, closely tied to that of context, is that the more complex the organizational setting the more likely there will be disjunctures between official statements about what is happening ("This is how we do medical education." "This is how we do patient care.") and what actually takes place on the clinical shop floor. Medical schools are extremely complex organizations inhabited by many social actors (e.g., faculty, students, administration, staff, patients, other health care workers), all engaged in complex sets of interactions around both the learning of medicine (the goal of education) and the care of patients (the goal of doctoring). In short, medical schools are multidimensional, relational, dynamic, and complex and thus loaded both with tensions and the potential for contradictions.

For both of these reasons, it is helpful to think of the HC as an alternative way of looking at things—alternative to the official or the formal account of what is going on. This often is an underappreciated point. The HC is not always negative or bad, something to be overcome. Nonetheless, there often is more taking place than official accounts will encompass. Thus, whenever one hears the official version of things, the next question should be: "What else is going on?" or "What else might be lurking just beneath the surface?"—and there almost always is something taking place other than what official accounts might acknowledge.

Although singular, the term "HC" should be thought of as a category label that encompasses a range of other-than-formal curricula—including curricula that are informal, hidden, and "null." As a form of social action, medical schools (like other educational settings) are awash with curricula, often with multiple lesson streams coursing through the learning environment at any given point in time. As such, it would be analytically misleading to think of a medical school as having *a* (singular) hidden curriculum or *an* informal curriculum, or *a* singular anything else. Some of these curricula can be defined as follows:

1. formal curricula: what a school formally states—its mission statement, course curricula, materials, and objectives
2. informal curricula: unscripted and predominantly ad hoc teaching and learning that occur outside of the formal curriculum (e.g., during ward rounds at the bedside) and that contain messages that can be consistent or inconsistent with the formal curriculum
3. hidden curricula: lessons, especially about norms and values, that are embedded in a school's organizational structure and culture but not explicitly intended to be

taught, which may be supportive of or contrary to the formal curriculum

4. null curricula: that which is taught through omission—for example, when something that is not mentioned in class or role modeled on the wards becomes something students conclude must not be important [7].

Given these core distinctions, care must be taken not to use the terms "informal" and "hidden" as interchangeable. Although there can be some overlap, it is important to stress that "hidden" means hidden. A great deal of what takes place in organizational settings may be tacit, but nonetheless still commonly understood—and shared. Workarounds are a wonderful example of informal teachings [8]: "the book/rules say this is how you transport a patient or do a procedure, but everyone knows (around here) that the best way to transport or carry out the procedure is this other way." There is nothing hidden here. Everyone is quite aware both of the formal and the "other" way.

There is, however, another kind of learning that often does fly beneath the radar—and thus functions in a more invisible or unconscious manner. Much of what unfolds within this domain of learning has to do with culture, particularly organizational culture. When the routines of daily activity unfold in their typically routine and predictable ways, the values they convey are often invisible because they are taken for granted. They remain assumed and unnoticed until something unexpected happens, something outside the norm/rule/usual, or until these routines are looked at by someone new to them. And, all of a sudden, the invisible becomes visible.

Within this context, it is helpful to think of trainees, particularly new trainees, as hypersensitive readers of the new environments they encounter. They are strangers in a strange land, and thus desperately engaged in trying to "make sense of things." As such, neophyte students are able to notice the wrinkles and nuances that actually make up most communities and group activities. However, as trainees move deeper into the culture of the group they seek to join (in this case the culture both of their medical school and the medical profession as a whole), they accept and become desensitized to the nuances and inconsistencies that once grabbed their attention. They "see less" as more and more of their surroundings become taken for granted. They become more like those core insiders for whom "what is" is "what it should be."

Analyzing the Hidden Curriculum In and Around "On Doctoring" Courses

As we have seen, many elements within and surrounding OD courses convey messages, and there are several challenges in making sure those messages do not undermine the intended learning outcomes. The first challenge is to adequately structure the course material. The array of topics, formats, and issues typically included under the OD banner need to be painstakingly integrated in a way that conveys intention. Not to do so sends an HC message to students that OD is a dumping ground for unimportant or otherwise orphan material. However sympathetic or personally open to OD content students may be, a carelessly organized or incoherent course will "teach" them that the real, important educational action is happening somewhere else.

A second challenge has to do with the relationship between OD and other courses. OD never takes place in an educational vacuum. Other courses exist and other educational

experiences always vie for students' attention and time. Operating from an HC perspective demands that we be aware of these other players and account for their presence in evaluating the import and impact of a school's OD effort. Most obviously, we must be sensitive to how courses are scheduled. Does OD have a "prime-time" place, and therefore status, or does it take place when and where it will not interfere with "more important" coursework? Students are quite adept at reading these messages. Students receive one set of signals when a school extends its OD course across all four years of training and another when it restricts this offering to the "preclinical" curriculum. The absence of a safe and regular opportunity to reflect on clinical and ethical challenges, role-play communication strategies, and work out professional boundary issues that arise in clinical settings not only creates a learning void, but also can function as a null curriculum, with such an absence telling students that the issues they are wrestling with are not terribly important, should already have been mastered, or are things they are expected to resolve "on their own."

Other courses, teachers, and material may also directly contradict OD courses' lessons. What students are being formally taught is "the right way" in class or simulation lab may not be what they encounter when they actually find themselves in clinical settings. For example, in an OD critiquing session, at one school, a student (also quoted below) mentioned that she hardly ever saw her preceptors doing some of the things the course was teaching her, like responding to emotions. In addition, many of her classmates felt the things being taught were too "touchy-feely, and…everyone seemed less interested in the interviewing and more anxious to do the physical exam right."

A third and particularly important challenge is that of selecting teaching methods that reinforce, rather than undermine, the messages, values, and skills intended to be conveyed. Consider these real-life examples from two different OD courses:

> A first-year student was interviewing a standardized patient. She was methodically going down her checklist both in her mind and on the paper on her clipboard in her hand, trying desperately to keep her periods of eye contact up, asking enough open-ended questions, and remember all the mnemonics she has been taught.
>
> She reached the time to ask the patient about the family history. When she asked the patient about her children, the patient hesitated a bit, her eyes lowered to look at the floor and teared up as she said: "I'm worried about my daughter." Desperately trying to remember the mnemonics about how to respond to emotion or to show empathy, and thinking about the next set of questions on the script she had to get completed, the student nervously blurted out; "Do you have other children? And is there any diabetes or heart disease in the family?" (unpublished data).

The use of checklists to help neophyte trainees navigate their way through an unfamiliar landscape of history and physical taking also can trap them into not recognizing a quite human and poignant moment.

This second story comes from another school's OD curriculum. A key part of this school's OD offerings is a small-group experience in which students can confidentially talk about and reflect upon issues of concern.

> One of our older male attendings on the OB service would offer medical students the opportunity to perform pelvic exams on anesthetized patients who were about to undergo surgery. Two female students in particular took issue with this. They felt uncomfortable with the fact that the patients had not consented and that there was no advantage to the patients in having students "practice" their exam on them. Students felt it was an abuse of power with especially vulnerable patients. Students raised this concern with the OB-GYN in question who responded that patients agree to come to a teaching hospital and consent is implied under the general consent form. The exam was not hurting them and in fact they would not even know it had happened. He continued the practice. The students brought this concern to our patient-doctor group—and several chose to write their reflection paper about the issue. The male students, while sympathetic to the concerns, raised the fact that often patients decline to allow them to examine the patient, and thus worried they were not getting enough experience. We spent a lot of time reflecting on the issue in our group, weighing the ethical principles involved, examining med school/hospital policies (ours and others), deciding whether to report the practice to our hospital ethics board. Finally the group made a collective decision that it would be permissible to do pelvic exams under anesthesia on patients [with] whom students had formed an initial relationship during a pre-op visit and specifically had asked if the student could be present and examine them while they were under anesthesia. Then, the students role-played the best way to obtain consent. They informed the OB that this is how they had decided to proceed as a group. The group leader was very moved by the way they used this forum of their peers to problem solve, practice communication skills and come to a group decision (unpublished data).

Here, students raise an issue of concern within a safe environment and work with their OD small group faculty to come to a collective resolution. This is in contrast to the all-too-typical medical educational environment, in which hierarchy reigns and students live in great fear (and reasonably so) of offending the faculty who will grade them and assess their competencies and professionalism—all potential fodder for a dean's letter that may determine residency placement. Parenthetically, and ever-vigilant to possible HC messages, it is important to note that when a school offers a structured opportunity labeled "safe harbor," that school may inadvertently imply that places outside the harbor are "unsafe"—which is quite a thing for a school to claim.

Returning to the above example, instead of merely asking students to memorize and repeat a "right way" of addressing problems, this structure encourages them to come up with their own answers and to collaborate with each other. OD becomes most transformational when students realize that ultimately they have access to each other and like-minded faculty as supporters not only inside but outside the group, and that change

need not wait until formal class time. When optimally designed and delivered, OD functions as an important learning vehicle for what it means to be a physician in a rapidly changing health care world.

Students embrace such opportunities. Directors of OD courses that do not offer students this feature might wish to consider adding it.

Finally, and lest we forget, attention to *how* material is presented in terms of voice is a continuing challenge. It is important that OD faculty not emulate the unwitting instructor (quoted earlier in the paper) who began every other sentence with "I know this is common sense but..." [4]. Nonetheless, and although some HC problems may be solved by the presence of faculty who are non-defensive and unapologetic in the face of challenges, the *more fundamental challenge* comes from the overall cultural context of medical training in which OD courses take place. The fact that we can find many students appearing to be dismissive and/or disparaging of OD would require us, from an HC perspective, to at least investigate further to understand the broader context of what else might be going on.

Conclusion

From an HC perspective, the greatest threat to OD courses is the current gulf that may exist between the "on doctoring ideals" being taught within such courses and the "reality" that students encounter when they circulate to other courses and "actual" clinical settings. Pro-OD rhetoric and aspirations aside, it always will be easier to design an isolated OD course awash with the "right stuff" and the "right ways" than it is to change the underlying culture of the medical school or the array of cultural practices that make up the broader clinical environment. For this reason, students most likely will continue to struggle to "make sense" of why they are learning one thing "here" and other things "there." Until organizational cultures and practice environments change (and they are changing) to better reflect pedagogical aspirations and the ideals of clinical practice (e.g., safe, patient-centered, high-quality), students will continue to receive conflicting messages about what it *really* means to be a "good doctor." Within this context, OD becomes most transformational when students realize they have access to each other and like-minded faculty as supporters not only inside but outside the group, and that change need not wait until formal "class time." When students start creating these safe havens on rounds and within related clinical activities via the creation of supportive dyads and small groups, the culture of medical practice does begin to change.

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MEDICAL EDUCATION

Communication Skills Training in the Twenty-First Century

Thomas W. LeBlanc, MD, MA

I did my first paracentesis as a medical student. My patient had cirrhosis of the liver, which led to "ascites" (the medical term for a massive fluid buildup in the abdomen). He appeared about nine months pregnant, and his tense, distended belly caused him much difficulty breathing. He pleaded for relief, so the medical resident offered him paracentesis, i.e., a fluid removal procedure. As we left the patient's room the intern proudly proclaimed, "You're going to do this one," with a smile and a nod of confidence in my direction. I felt much less confidence in myself than he seemed to have in me. What if I punctured the bowel? What if I hit a blood vessel? Catastrophic thoughts consumed me.

So I tried to "psych myself up" for my first paracentesis; surely this was an important rite of passage. And why worry? After all, I had seen a paracentesis once before, just the week prior; it seemed simple enough: just insert the needle into the fluid pocket and drain as much fluid as possible. And the intern would be right there, supervising me. She had done at least four or five of these procedures before, and we could page the resident if we ran into trouble. What could go wrong?

Thankfully, nothing did, and after I removed about five liters of fluid from my patient's abdomen he smiled and thanked us, finally able to speak without the staccato of a person whose lungs cannot fully expand. Still, I couldn't help but feel that I had dodged a bullet, or perhaps had enjoyed some beginner's luck. I wondered, was this really an appropriate way to learn? Should I really have been doing this for the first time on a real patient?

Stories like this are hardly unusual among medical trainees. "See one, do one, teach one" is the old adage of medical education. Having trained in the "see one, do one, teach one" culture, I can certainly appreciate its benefits. In many ways, it works; after all, much of medical training is an apprenticeship. Like the aspiring blacksmith who learns his new craft by watching a master at work, medical trainees do most of their learning contextually. It's a highly effective educational approach. Provided there are sufficient protections in place, it can be safe and reasonable to learn in this way. Reflecting on my own experiences, I have always learned so much more from caring for a patient than from reading a textbook.

More philosophically speaking, there will be a "first time" for each and every one of us to do a procedure. As simulation technology becomes increasingly sophisticated and available, however, one has to question the appropriateness of doing a procedure for the first time on a real patient. As a medical student in the early 2000s, we practiced physical examination maneuvers on each other first; we even learned to draw blood from each other's veins before anyone let us near a real patient, because simulation technology was

not yet ready for prime time. Now there are central line insertion simulators and anesthesia simulators. We can practice doing airway intubations on test dummies and run mock "code blue" scenarios with realistic equipment that responds much as a patient might. These simulators allow trainees to practice the mechanics of a procedure or scenario outside the pressurized environment in which patients' lives are at stake. Building this "muscle memory" can serve us, and our patients, well—practice does, indeed, make perfect.

Most people will therefore agree that trainees should practice using simulators first, before doing a risky procedure in real life on a real patient. This is hardly a controversial idea, and medical school curricula increasingly incorporate various types of simulation into their training [1, 2]. Allow me, then, to be a bit more controversial: I contend that we should take this logic a step further, and extend it to the ways in which we communicate and interact with patients. After all, harm can come from words, too, or from body language, not just from the tip of an errantly placed needle or a mishandled scalpel. Simulation isn't just for procedures anymore; patient-doctor encounters can be simulated too.

A growing body of literature demonstrates that communication behaviors are measurable, teachable, modifiable, and associated with important patient-centered outcomes [3-9]. Yet many students and trainees begin talking with patients without much instruction or practice. Unfortunately, trainees often assume they already know how to communicate. After all, we spend most of our lives doing it. But medical communication is different; there is often much at stake, emotions are involved, and the asymmetry of information can be enormous. If you don't believe me, think about the last time your car needed a major repair and recall the confusion, frustration, uncertainty, and other emotions that probably made this a difficult experience. A new solenoid—what is it and why do I need one? Will my car blow up without it?

When I give lectures on this topic, there are always skeptics. Some complain about how simulated communication exercises take valuable time away from "real" medical education. Others criticize the examples, possibly to deflect the focus from the discomfort the subject matter causes them. Still others say this content cannot be taught and should be learned slowly, through experience. Yet, when trainees take their place in the "hot seat" before a standardized patient, most of them really struggle. Then something magical happens: we see them improve with practice. The evidence is clear; communication techniques make a difference, and they can be taught and learned. For example, short training courses are shown to improve the quality of medical residents' end-of-life discussions with patients [9] and improve oncologists' attention to important psychosocial issues in the clinic [5].

Much of the recent success of palliative care as a subspecialty, one can argue, stems from its focus on high-quality communication. So many of us really value expert communicators because we feel unskilled ourselves and are sometimes unprepared when faced with communication-related challenges. When you really "get stuck" in a tough situation with a patient or family, you call colleagues in palliative care to help talk everyone through it. These skills and practices are absolutely invaluable. So why aren't we doing more to explicitly teach and measure them?

Granted, simulation of patient-centered communication can be difficult and costly and necessitates quite a bit of time and expertise. It often requires paying standardized patients to play roles and investing in their training. It requires interest and commitment from both educators and students. However, as several prominent examples show, it is possible and its rewards can be great. OncoTalk [10], an NIH-funded initiative to teach oncology trainees better communication skills, has spawned a number of offshoots for geriatrics, nephrology, and critical care settings, among others, including its newest cousin, Vital Talk, which offers communication and faculty training courses for clinicians [11]. Don't our patients deserve not to be the proverbial "guinea pigs"? Would we not scoff at sending a student to the wards without understanding anatomy and physiology? Similarly, no trainee should have to give bad news to a patient without having practiced it repeatedly in simulation, studied principles of high-quality patient-centered communication, and been evaluated on his or her performance.

But don't take my word for it; in its visionary 2014 report *Dying in America*, the Institute of Medicine calls for structured assessment of communication quality as part of physician licensing and continuing medical education [12]. This would be an important step toward elevating the quality and consistency of patient-centered care in the United States. Perhaps this is a signal that the future is getting brighter for the teaching of patient-centered communication skills. And perhaps, in light of new teaching techniques, the old adage requires a bit of modification: "See one, try one, and if you mess it up—don't worry, it's just a simulation."

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IN THE LITERATURE

Role Models' Influence on Medical Students' Professional Development

Martha Peaslee Levine, MD

Haidet P, Stein HF. The role of the student-teacher relationship in the formation of physicians: the hidden curriculum as process. *J Gen Intern Med*. 2006;21(1)(suppl):S16-S20.

In their 2006 article, "The Role of the Student-Teacher Relationship in the Formation of Physicians: The Hidden Curriculum," Haidet and Stein challenge us to consider the student-teacher bond as we educate medical students and help them develop their professional identities [1]. They approached this topic from the framework of relationship-centered care, which underscores the importance of all relationships in medical care, not just the patient-doctor dyad. This includes relationships between health care professionals, within the patient's family, and within the community as a whole. When they used these relationship ideals to examine medical education, the authors discovered that even as medical schools established more formal courses and rituals that focused on communication, compassion, and humanism, they were still turning out medical students who demonstrated an erosion of relationship skills as they progressed through their education. This raised the question: what is the culture of medicine—its hidden and informal curricula—teaching our students?

Haidet and Stein drew a connection between the implicit messages medical trainees receive (what they refer to as "assumptions") and the "premises" that underlie them. For example, the message that "doctors never admit to not knowing something" underscores the premise that "uncertainty and complexity are to be avoided" [2]. This is an undesirable belief for a number of reasons: it can affect students' educations by causing them to fear asking questions and admitting ignorance, and it also discourages students from admitting uncertainty to patients. Yet, are there not times when we do not know the cause of a patient's symptoms and need to investigate further, or times that the solution to a medical problem is not a simple fix?

Other premises that Haidet and Stein note are that "outcome is more important than process" and "hierarchy is necessary" [2]. These premises give rise to various assumptions and messages, for example, that it is acceptable to be rude while doing something important and that inferiors must never question their superiors. These kinds of beliefs can lead to "pimping," or public shaming, of students. As Benbassat emphasizes, "faculty cannot humiliate medical students and still expect them to respect patients, just as it is impossible to ignore students' distress and still teach them to empathize with patients" [3]. Haidet and Stein reflect on research showing that, when students feel intimidated,

they tend to hide what they do not know and are afraid to clarify misconceptions. Haidet and Stein contend further that, when a student "is at best emotionally disconnected and at worst emotionally attacked by the teacher," this fosters a "professional stance that is emotionally distant from patients" and anyone else who is lower in the medical hierarchy [2].

These unspoken but clearly demonstrated relational messages are part of the hidden curriculum, which Gaufberg, Batalden, Sands, and Bell describe as "the set of influences on one's development as a physician that is not explicitly taught. It is transmitted through interpersonal interactions on the wards or in other clinical settings, through positive or negative role model behaviors, and through the culture and hierarchy of medicine" [4]. The mention of role models raises an issue that Haidet and Stein challenge readers to consider: "to what extent do positive or negative student-teacher relationships mediate students' adoption of the implicit premises of medical culture?" [5]. In other words, how are educator role models affecting medical students' professional development?

Wear and Skillicorn [6] have tried to answer some of these questions, building on the work of Haidet and Stein. They examined medical students', residents', and attending physicians' perceptions of the formal, informal, and hidden curricula in psychiatry. All three groups agreed that the formal psychiatry curriculum focused on building relationships and that elements of the informal and hidden curricula were conveyed by interactions, particularly those of the attending physicians with patients and students. While the attending psychiatrists reported wanting to impart only professionally desirable lessons in modeling interactions, students and residents described messages communicated in attending psychiatrists' behavior, e.g., through expressions of cynicism or spending little time developing relationships with patients or students, that contradicted the formal curriculum's emphasis on relationship building.

The disparity in how different members of the medical hierarchy viewed these interactions can be explained in different ways. Wear and Skillicorn proposed that the attending physicians interviewed as part of the focus group may have been the "good" role models who were not imparting these negative messages. But others have brought up the idea that attending physicians may have impacts on students and trainees of which they are unaware [7]. Often professionals are so entrenched in the culture of medicine that they are not cognizant of some of the hidden messages that are being imparted.

Whether physicians are aware of what they are communicating or not, the effects of role modeling on medical students can be profound. One study used longitudinal narratives to examine the impact of role models' behavior on the development of students' professional identities [8]. Some of the encounters were affirming: students encountered engaged doctors who demonstrated empathy and helped them to understand the emotional demands placed on physicians and ways to strengthen the patient-doctor relationship. Others experienced the opposite: one student who started out enthusiastic described being "profoundly changed by witnessing harsh treatment from a negative role model" [9]. In institutions where teamwork and collaboration are often emphasized in the preclinical years of education, encountering examples of harassment, or at the very least emotional disregard, in the clinical setting can be a rude awakening.

Mentoring behavior has a long reach—its effects extend beyond those who experience it firsthand. It can even influence students with whom the role model has no contact, as negative and positive stories are shared [10]. It can affect patients by informing how students will eventually practice medicine themselves, and it can affect younger trainees by informing how students will act when they become residents or, in some cases, attending physicians.

For example, one study examining student "mistreatment" according to specialty found that students experienced more mistreatment in surgery, obstetrics-gynecology, and internal medicine clerkships [7]. Although resident physicians were most often the inflictors of the abuse, some of the faculty saw the negative comments as mere jokes—something that should not be taken seriously. These results seem to suggest that this kind of treatment from role models teaches students to accept and, indeed, repeat it when they are in positions of authority.

The authors of this study suggested that mindfulness interventions could help attending and resident physicians become more aware of their negative comments and behaviors and their impact on medical students [7]. It is incumbent upon resident and attending physicians to practice mindfulness and to consider, "Is this how I would want my family member treated?" when communicating with patients. When interacting with trainees, educators need to consider that, as Haidet and Stein point out, negative feelings of anger and anxiety can interfere with learning. The idea that "pimping" is good for students may not be accurate, and just because we survived this behavior doesn't mean that we should perpetuate it.

Students by themselves cannot change the hidden curriculum. As Gaufberg et al. note, "All too often, student 'professionalism' is simply equated with subservience within the hierarchy" [11]. It is next to impossible for students to challenge the messages communicated through the hidden curriculum, even if they contradict the objectives of the formal curriculum. It is the responsibility of educators to change the tone and the culture.

Some educators are working to find ways to combat ethically undesirable messages about, for example, how to talk with and about patients and families. A daylong workshop, entitled "Difficult Conversations at the End of Life," developed in 2002 by the Program to Enhance Relational and Communication Skills (PERCS) at the Boston Children's Hospital Institute for Professionalism and Ethical Practice [12], combats some of the pernicious tenets of the hidden curriculum—that insensitivity to patients is acceptable and that physicians should be detached, unemotional, certain, and devoid of anxiety. It emphasizes that, within difficult health care situations, anxiety and vulnerability are not only normal but expected [12]. The program also works on helping team members relate to patients and families in a more humanistic manner. For example, a clinician taking a detached tone, such as talking about "harvesting organs" to a grieving family, receives feedback in a debriefing session regarding ways that such communication could be insensitive. This method can be helpful in a number of ways for professionals mentoring medical students. It allows attending physicians participating in the workshop to become aware of undesirable behaviors that they may be displaying in their clinical work and thereby modeling to

students. If we can change the attitudes and behaviors of the teachers, then we will change the attitudes of the learners. The designers of this program focused on the importance of relationships and the hidden messages that Haidet and Stein alluded to in their article.

The learning that matters most in the development of health care professionals occurs in the context of relationships. The question is whether these relationships foster the qualities that we want in our future physicians. Ultimately, we need to recognize that forming a professional identity is influenced as much, if not more, by relationships, mentoring, role modeling, and the hidden curriculum as by formal teaching experiences [13]. Attending physicians need to be mindful of our influence and the power dynamics not only in patient interactions but also in teaching. To promote satisfying relationships and good clinical care, we need our patients, other health care professionals, and students to feel comfortable so they can ask questions, clarify understanding, and be active members of treatment teams.

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HEALTH LAW

Challenging the Medical Residency Matching System through Antitrust Litigation

Richard Weinmeyer, JD, MA, MPhil

It is no secret that medical residencies are tremendously challenging positions. Being a resident physician often means long, grueling hours of patient care, a relatively small salary for the hours worked, and a steep learning curve of training and education under the scrutinizing eyes of seasoned physicians and fellow residents. The process for securing a residency is no leisurely stroll, either. Participation in the National Resident Match Program (NRMP), also known as "the match," is a competitive endeavor in which medical students vie for a coveted residency placement at one of several institutions of their choice; their ranked selections are factored against the choices of those institutions by an automated algorithm that makes the final determination. Although most medical school graduates accept that participating in the match and a residency program accredited by the Accreditation Council for Graduate Medical Education (ACGME) is the only way to become a licensed physician, a small group of physicians sought to challenge this system through legal action starting in 2002 with *Jung v. Association of American Medical Colleges* (AAMC)—a case that ultimately led to the legal solidification of this system for the foreseeable future [1].

Basis of the Litigation

The parties. In 2002, a group of three physicians led by Paul Jung, MD, a research fellow at the Johns Hopkins University, brought a class action suit on behalf of all current and former medical residents against a group of defendants that oversaw and participated in the match process and employed medical residents [2]. The size of the group of residents being represented by the suit was considerable, including all persons who had been employed as resident physicians since 1998 in programs that were accredited by the ACGME, as well as physicians in ACGME-accredited fellowships [1].

Those in the defendant class were categorized into two specific groups: "organizations and associations that participate[d] in the administration of graduate medical education in the United States" [3], e.g., the AAMC, NRMP, and ACGME, and "universities, medical schools, foundations, hospitals, health systems and medical centers that sponsor[ed] medical residency programs" [3].

Anticompetitive claims. The resident plaintiffs argued that the organizational and institutional defendants, through the match, had imposed anticompetitive restraints on medical residency placement and hiring by quashing the prospective residents' ability to negotiate the terms of their employment contracts, resulting in fixed and depressed compensation packages [4]. The legal basis for the residents' claim was that it violated Section 1 of the Sherman Antitrust Act, which holds that "Every contract...or conspiracy, in

restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal" [5]. The Sherman Act is one of three core federal antitrust laws that regulate commerce in the United States, but some violations of the act may not necessarily be deemed illegal if the parties involved in the suspect activity can demonstrate that the restraint on trade is reasonable [6].

Those accusing the defendants of acting unreasonably in their restraint of residents' employment terms characterized the conspiracy as having three interdependent components. The first concerned forced participation of fourth-year medical students who want to enter residency in the NRMP, a system that allows no negotiation [7]. The residents alleged that the "system eliminates a free and competitive market and substitutes a centralized, anticompetitive allocation system that assigns prospective resident physicians to a single, specific and mandatory residency program" [8] and that the organizational defendants—including the American Board of Medical Specialties (ABMS), the ACGME, and the NRMP—"designed and implemented [the match] and collectively agreed to comply with it in violation of antitrust laws" [8]. They argued that what made the match anticompetitive was how the process was carried out. Medical students have to enter into the match, because without ACGME-accredited training physicians are unable to receive specialty certification with a member board of the ABMS [8]. And, without being certified by a specialty board under the ABMS, residents would be unable to practice in their given specialty upon completion of their residency [8]. Thus, according to the plaintiffs, medical students had no choice but to enter into the match and contractually agree to the procedural terms and conditions established by the organizational defendants with no opportunity to negotiate those terms in an open, competitive marketplace [8].

The second component of the alleged conspiracy focused on the ACGME accreditation system. The plaintiffs asserted that the ACGME, in working with institutional defendants, did the following: (1) regulated the number of available residency positions; (2) made the NRMP match result permanent by imposing "substantial obstacles to the ability of a resident to transfer employment from one employer to another during the period of a residency" [9]; (3) encouraged and/or required medical institutions to participate in the match as a condition for receiving accreditation; and (4) directly reviewed "compensation and other terms of employment with the purposes of fixing and depressing" them [9].

The third and final component of the alleged conspiracy concerned the defendants' exchange of information on residency compensation and other employment terms through a variety of surveys and databases. According to the plaintiffs, the sharing of this information between organizational and institutional defendants had the "purpose and effect of standardizing and stabilizing compensation and other terms of employment" [9]. The plaintiffs argued that residency employment information was communicated primarily through two avenues. First, the AAMC gathered information from 375 teaching hospitals and health systems about their residency compensation and made those aggregate findings available through an annual report [9]. Second, similar types of residency compensation data were maintained in the American Medical Association's Fellowship and Residency Electronic Interactive Database, which was accessible to hospitals and health care systems interested in reviewing residency compensation across the country [9]. The result of this information's being so widely available to institutional defendants, as claimed

by the resident plaintiffs, was that it allowed them "to fix resident salaries and benefits each year at depressed, anticompetitive levels" [9].

Legislative Intervention

Although the case against the match and residency programs began in a federal district court room in 2002 and would continue in some form for several years to come, a quickly maneuvered legislative action in 2004 ultimately determined the fate of the *Jung* case. In the spring of 2004, the United States Congress was debating and preparing to vote on the Pension Funding Equity Act of 2004, legislation designed to update the interest rate for calculating employee pension contributions [10]. Although neither the House of Representatives nor the Senate had openly discussed the *Jung* litigation, lobbying efforts by the AAMC and the American Hospital Association sought to amend the Pension Funding Equity Act with provisions that would directly address the matters being raised by the plaintiffs in *Jung*—specifically, whether the current residency system violated antitrust law [11]. As the final version of the pension legislation emerged from the congressional conference committee in early April 2004, it contained an amendment entitled "Confirmation of antitrust status of graduate medical resident matching programs" (Section 207) that had been sponsored by Senators Judd Gregg of New Hampshire and Edward Kennedy of Massachusetts [11].

Section 207 framed the current residency system as an effective, procompetitive process that had for 50 years successfully placed medical students in the residency programs of their preference [12]. Furthermore, the congressional findings reported in Section 207 noted that "[a]ntitrust lawsuits challenging the matching process, regardless of their merit or lack thereof, have the potential to undermine this highly efficient, pro-competitive, and long standing process" [13] and that legal assaults on the match "would divert the scarce resources of our country's teaching hospitals and medical schools from their crucial missions of patient care, physician training, and medical research" [13].

On April 8, 2004, Congress passed the Pension Funding Equity Act, and President George W. Bush signed it into law. The Section 207 amendment had two major legal effects. First, the provision confirmed that "it shall not be unlawful under the antitrust laws to sponsor, conduct, or participate in a graduate medical education residency matching program, or to agree to sponsor, conduct, or participate in such a program" [14]. Second, in relation to the first statement, the provision held that "evidence of any of the conduct described...shall not be admissible in Federal court to support any claim or action alleging a violation of antitrust laws" [14].

Impact of Legislation on Litigation

Both the plaintiffs and the defendants in *Jung* attempted to reposition their stances around the new legislation. The court's analysis began with the first part of Section 207's legal effect. The defendants argued that, because of Congress's passage of Section 207, it was no longer "unlawful under the antitrust laws to sponsor, conduct, or participate in the Match or to agree to sponsor, conduct or participate in the Match" [15]. The court acknowledged that, while this was true, the claims asserted by the resident plaintiffs were a combination of interconnected elements that involved the match but were also distinct from the resident assignment system; therefore, other illegal conduct, e.g., price fixing,

could still be present. As the court reasoned, even though the match was deemed lawful by Congress, the use of the match to further illegal activity would still make the match an illegal enterprise [16].

In an effort to have the case dismissed, the defendants then pointed to a part of Section 207 that barred the inclusion of any evidence about the match from federal court cases. Because "using allegations related to the Match to support any antitrust claim, price-fixing or otherwise" [16] could not be allowed, the plaintiffs argued that its claims of conspiracy by the organizational and institutional defendants need not rely on allegations involving the match [16].

The court disagreed, however, pointing out that "the complaint does not allege a price-fixing conspiracy but a single overarching integrated antitrust conspiracy with the Match as its centerpiece" [17] and that for the plaintiffs to so heavily emphasize the importance of the match at one stage of litigation and then state otherwise later on was inconsistent [17]. Ultimately, the court dismissed the case brought by the residents because Congress prevented all federal courts from considering match-related conduct and "the allegations concerning the Match and the institutional defendants' participation in the Match are so interdependent that the Court cannot separate them from the remaining allegations" [18].

Conclusion

The legal challenge to the match and accredited residency programs was a bold attempt at reshaping a critical stepping stone in medical education and training in the United States. It revealed not only the frustrations many medical students and physicians experience with the current system but also the staunch resistance of those who oversee that system to substantial alteration of a process that has been in place for more than 60 years.

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POLICY FORUM

Equity for "DREAMers" in Medical School Admissions

Mark G. Kuczewski, PhD, and Linda Brubaker, MD, MS

Where We Are and How We Got Here

In the autumn of 2012, the Loyola University Chicago Stritch School of Medicine became the first medical school in the nation to amend its admissions policy to welcome applications from "DREAMers"—undocumented immigrants who were brought to the United States as children, i.e., prior to the age of 16, and have been raised and educated in the United States for more than five years—who have "DACA" (Deferred Action for Childhood Arrivals) status [1]. DREAMers are so called for the oft-introduced, but never passed into law, federal DREAM (Development, Relief, and Education of Alien Minors) Act. In many cases, DREAMers came to the United States as very young children and may have little direct experience with the countries in which they were born.

Loyola Stritch's journey was motivated by an inquiry from a professor at another Jesuit university regarding a highly qualified DREAMer undergraduate student he was mentoring [2, 3]. We immediately wished to entertain this student's application for several reasons that we believe are valid for any medical school.

1. The student was described as having outstanding academic qualifications, i.e., a very high grade point average while double majoring in biology and Spanish, and a record of service.
2. The student was clearly bilingual and likely bicultural, having insight into both life in the United States and the immigrant experience.

In short, this student had a very desirable profile. Medical schools want the most highly qualified candidates and do not want to disqualify students with strong academic credentials arbitrarily. And they wish to produce a diverse workforce that is prepared to meet the needs of evolving communities physicians must serve. This student seemed to bring together the best of both kinds of qualities.

Loyola University Chicago, as a Jesuit and Roman Catholic university, proclaims the promotion of social justice as part of our mission [4]. Social justice, as understood in Jesuit education, requires that all members of the community have access to full participation in the life of the community and are not excluded owing to accidents of social class and birth [5]. This mission clearly sensitized us to the urgency of this student's situation. A commitment to fostering social justice is also, we believe, related to the mission of academic medicine. Injustice and exclusion contribute to health and health care inequities; medicine must work to alleviate such barriers for the common good.

Until recently, DREAMers faced a seemingly insurmountable barrier to practicing medicine. Namely, they had no authorization to work in the United States. This meant that, while

there was no legal barrier to their receiving medical educations, these students would be unable to pursue residency training and licensure. Thus, medical schools were rightly concerned about the prudence of devoting substantial resources to the education and training of these students when, most likely, they would be unable to fulfill the goal of serving the health care needs of the community. This changed when President Obama created the Deferred Action for Childhood Arrivals (DACA) program in June 2012 [6].

DACA draws on the criteria from various versions of the DREAM Act to describe a group of DREAMers who may register with the federal government and be granted two-year, renewable deferrals of action regarding their immigration status [7]. DACA status brings with it an Employment Authorization Document (EAD), colloquially called a "work permit," and eligibility for a Social Security number. In most states, this removes any legal or regulatory barriers to licensure and a residency slot [1].

With the creation of DACA status, the leadership of the Loyola Stritch School of Medicine moved to change its published eligibility requirements to make it possible for DREAMers to apply [8]. Our website was amended to say that applicants must be US citizens, hold a permanent resident visa, or be eligible for the DACA process of the US Citizenship and Immigration Services at the time of application.

This accelerated the dialogue about DREAMers among medical schools and the Association of American Medical Colleges (AAMC). Should all medical schools mirror Loyola's policy? What about the financial aid needs of these students?

We can unequivocally assert that we believe that the mission of academic medicine is best served by all medical schools' acknowledging these students as eligible for admission. We might go even further and argue that to deny applications based on students' DACA status is unjustified discrimination. When we realized that qualified DACA-status applicants had everything they needed to eventually become licensed, practicing physicians, we could see no justification for the exclusion of their applications. However, those few state medical schools located in states that have anti-immigrant laws preventing the licensure of undocumented immigrants may present an exception because they are, in some ways, still in the situation that we encountered prior to the creation of DACA.

Two things should become standard across medical schools. First, there is a need for academic medicine to adopt uniformly open and transparent policies in regard to DACA applicants. Second, medical schools need to develop equitable financial aid options for DREAMers who matriculate.

Uniform and Transparent Admissions Policies

We know some things for certain. The best news is that at least three medical schools have joined the Loyola University Chicago Stritch School of Medicine in revising their admissions policies to declare explicitly that DACA-status students are eligible for admission [9-11]. Fourteen other schools have given the AAMC permission to list them as willing to consider DACA-status applicants [12]. These schools are to be commended for their transparent approach. Unfortunately, according to an AAMC survey, about the same number of schools would accept a student with DACA status but have not chosen to be

transparent about that intent [13]. But this transparency is necessary from both a practical and moral perspective.

From a practical standpoint, it makes little sense to deny prospective applicants the knowledge of whether their application is welcome or not. Obscuring one's policy leads to much wasted effort: by prospective applicants in trying to determine their eligibility for admission, by DACA-status applicants applying to schools only to be denied prior to review, and by schools that would entertain such applications failing to attract them. It only makes sense for all schools to be clear about their policy concerning eligibility to apply.

But it is also morally important that medical schools publicly declare their receptiveness to applications from immigrants, both legal and undocumented. Accepting DACA applicants without publicly acknowledging their eligibility is no more morally commendable than would be accepting applicants from any excluded group and obscuring that fact. Of course, much of this lack of transparency may be caused by a concern that the school will receive many worthwhile applications from these students for whom the school may have insufficient financial aid resources.

Equitable Financial Aid Options

We believe that DREAMers should have access to financial aid packages comparable to those of their citizen peers. Despite their DACA status, DREAMers remain ineligible for federal student loans, a key part of most medical students' financial aid packages. This presents a major challenge for most medical schools. As a result, medical schools may choose to accept very few DACA students or to accept such students and then make the financial aid decisions separately. In the latter situation, students may receive insufficient aid to enable them to attend, or the school may choose to direct large amounts of scholarship money to one or more such students. We have argued elsewhere that, given the inequity inherent in the lack of access to federal aid, schools are justified in using large amounts of scholarship resources for these students [14]. However, considerations of equality and solidarity counsel that more creative options be developed.

The Loyola University Chicago Stritch School of Medicine worked with the infrastructure bank of the State of Illinois, the Illinois Finance Authority (IFA), to create a DACA student loan program modeled on public health service loans. These loans require DACA students to provide a year of service to underserved populations or in a physician-shortage area within the state of Illinois for each year that they use these loan monies. This loan program, which uses no taxpayer funds, is an investment in the physician infrastructure of the state. Schools within states such as Illinois should avail themselves of these options, and others could pursue similar creative options within their locales [15].

Of course, enlisting the support of state governments and foundations can take a long time and may not be successful. In the more immediate future, it is probably desirable for schools to break out of a paradigm in which they either support the student's financial need entirely through scholarships or provide inadequate aid to meet the student's needs. For instance, medical schools can consider using financial aid funds to develop school-based loan programs, blending loans and scholarship funds to achieve financial aid

packages comparable to those the members of their student body typically receive. In this way, schools may continue to foster equality among their students.

Conclusion

Because of political controversy, the health needs of immigrants go unaddressed in the United States and become the province of the emergency rooms of our hospitals. It is imperative that academic medicine educate the public directly and by example about the importance of access to health care and to a health care workforce equipped to meet the needs of our communities. Academic medicine has a duty to develop a workforce that is able to serve the needs of the diverse patients and communities of the United States. Allowing qualified DREAMers to receive a medical education is an important step forward in fulfilling that mission [16], and it is important that academic medicine rise above political controversies and current biases to take that step. The trust of the public in the medical profession requires that medical schools act justly and transparently rather than fail to act for fear of controversy.

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POLICY FORUM

Unjustified Barriers for Medical School Applicants with Physical Disabilities

Stanley F. Wainapel, MD, MPH

Compared to the percentage of the population that has disabilities, the prevalence of physical disabilities among American medical students is low [1]. This may reflect the difficulties faced by applicants to medical programs resulting from technical standards for admission that place those with physical disabilities at a disadvantage compared to other applicants. These standards have persisted despite antidiscrimination legislation over the past 40 years, including Section 504 of the Rehabilitation Act of 1973 and the more recent Americans with Disabilities Act (ADA) [2, 3]. College students with physical disability who seek admission to American medical schools encounter policy as well as physical barriers to entry. The disconnect between the empowering language of the ADA and the technical standards for medical school admission and graduation compromises the civil rights of this particular group, which have yet to be protected the way the rights of other groups defined by gender, race, or ethnicity have been.

In the terms set out by the ADA, an "otherwise qualified" individual is entitled in employment or schooling to "reasonable accommodation" of physical limitations resulting from his or her disability. The accommodation could be relatively minimal (e.g., providing adequate lighting for someone with impaired vision or a telephone with amplification for someone with impaired hearing), but it could also involve more complex technology (e.g., specialized screen-reading software or devices). As a direct response to the stipulations of the ADA, an environment that is fully accessible for a person whose sensorimotor limitations require ambulatory assistive devices (e.g., cane, crutches, walkerette, or wheelchair) is increasingly becoming the standard for buildings, streets, and forms of public transportation. For similar reasons, it is now commonplace to encounter automatically opening doors, ramps, wheelchair-accessible rooms, adjustable patient examining tables, teletype telephone services, and elevators with auditory signals and Braille markings within modern hospitals or health care facilities, not to mention "curb cuts"—ramps connecting the street surface to the top of the sidewalk—leading into such facilities. All these environmental modifications are extremely beneficial for the many people with physical limitations.

But when a college student with disabilities hopes to become a doctor, the mandate to provide accommodation comes into conflict with society's stereotypically high expectations of physicians and its equally low expectations of persons with disabilities. The result is an almost irreconcilable paradox: a doctor with a disability simultaneously belongs to a superior and an inferior social group [4]. Much of the focus in medicine is on incapacity rather than preserved capacity, even if some functions can be augmented. How many physicians who are not specialists in the medical care of people with disabilities would be aware that a paraplegic doctor can stand up in the operating room using a special device,

that a physician whose vision precludes reading chart notes can easily access electronic medical records using screen-reading software, or that a medical student with a hearing impairment can do cardiac auscultation using an electronic stethoscope? These examples of existing technological accommodations emphasize the central role of technology in enhancing the functional potential of those with motor or sensory limitations.

We already accept supportive enhancements for "typically abled" physicians. Imagine an ophthalmologist, vascular surgeon, or hand surgeon attempting to perform microsurgery without their operating microscopes. Or consider the increasing acceptance of robotic surgical techniques, in which the robot extends the physician's motor abilities. Similarly, use of "physician extenders," such as nurse practitioners or physician assistants, is a support system that would also be useful for practitioners or medical students with physical disabilities. If we accept certain kinds of extenders for "typical" physicians, why would we object to physicians who need other kinds?

A recent review of the technical standards for admission set by medical schools, however, demonstrates that they have not kept pace with legislative or technological developments [5]. These standards—generally classified as observation, communication, motor abilities, intellectual/conceptual, and behavioral/social—continue to require degrees of sensory and motor function that effectively preclude many otherwise qualified applicants with physical disabilities from being considered as viable candidates. Michael Reichgott has persuasively argued that these standards are unnecessarily restrictive, given the primary importance of cognitive qualifications and the decreasing importance of physical ones in contemporary medical practice [6].

These rigid standards arise from the ideal of the "undifferentiated physician," with its assumption that all medical school graduates should be capable of entering any medical specialty upon completion of their education [7]. Given the wide range of personality types of graduates, this concept appears unrealistically stringent even for fully abled students. Personality traits alone mean the student who would likely excel as a psychiatrist might be unsuitable for the high-pressure environment of surgery or emergency medicine and vice versa. David Hartman, who has criticized the "undifferentiated physician" concept, emphasizes that knowing the limitations of one's own expertise is at least as important as feeling prepared to function in any or all specialty areas [7]. Since the "undifferentiated physician" is already a goal that cannot be met, excluding potential doctors on the basis that their limitations would make them ill-suited for some specialties makes little sense.

Students with disabilities might even have advantages that the "typical" physician does not. Joel De Lisa has provided the most recent and most comprehensive overview of the subject of medical school applicants, medical students, and physicians with physical disabilities [1]. His analyses of the evolution of technical standards and review of pertinent legal cases are particularly enlightening. He includes ten specific recommendations that warrant future study and re-evaluation of current admission policies. Finally, he points out that a student with a disability possesses an insider's view of the experience of what can be termed "patienthood" and can offer a depth of empathy that would strengthen the doctor-patient relationship at the center of the medical profession. All of this points to one conclusion: there is no good reason to bar entry to medical school on the basis of physical disability.

It should be emphasized that the terms disability and inability are by no means synonymous; the former term indicates only a difficulty in performing physical tasks. Howard Rusk [8] has encapsulated this idea vividly by describing rehabilitation as a process by which a person learns to live not just within the limits of his disability but also to the hilt of his ability.

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MEDICINE AND SOCIETY

Professional Socialization in Medicine

Brandon Vaidyanathan, PhD, MSc

Professions such as medicine lay claim to expertise and jurisdiction over specific sets of tasks [1]. They are social structures that have a cultural dimension, with distinct norms of interaction, registers of evaluation, systems of meaning, and myths, symbols, and rituals that govern professional life [2, 3].

Professional culture in medical schools includes norms of interpersonal interaction among peers, between superiors and subordinates, and towards patients; criteria for evaluating whether actions, desires, and goals are worthy/unworthy or laudable/deplorable; beliefs about, for example, what areas of specialization are more "difficult," what personal sacrifices are justifiable for the sake of the profession, what sort of candidate would be a good "fit" for a position, and what emotions one should or shouldn't express; and shared tastes and dispositions [4-9]. Professional cultures also include socialization rituals. For instance, classical sociological studies on medical professionalization depict medical schooling as a rite of passage during which neophytes are structurally separated from their former environments, then transition through a liminal phase in which they are (at least symbolically) stripped of their former external identities, and finally are collectively incorporated into their new roles [10, 11].

Formal socialization can transmit certain aspects of professional culture, such as beliefs about what it means to be a responsible and caring physician and codes of ethics by which to abide. But professional cultures also powerfully shape trainees' values and behavior through informal and tacit modes of socialization and implicit influences at the organizational and structural levels—what some call the "hidden curriculum" [11-13]. In medicine, the hidden curriculum can undermine formal goals of professional socialization, contributing to "ethical erosion" among medical students [14, 15] and raising important questions about how curricular and institutional reform should proceed [12, 16].

In what follows, I discuss structural and cultural means by which professional cultures are communicated to new members. In doing so, I highlight the effects of hidden messages in medical education on doctors in training, particularly on their ethical development.

Communicating Professional Culture in Medicine

Structures. At the structural level, institutional arrangements such as reward systems, institutional policies, or the racial and gender composition of professions can send messages about cultural values, some of which are harmful. For instance, these messages can sustain discriminatory tendencies and constrain equal access to opportunities. In medicine, women and members of marginalized groups may not be seen by gatekeepers and mentors as a "good fit" for subfields that are perceived as more demanding (which

also tend to be seen as more prestigious), and as a result might be turned away from these subfields or might realign their own preferences and opt out of these subfields [17]. Established hierarchies also protect unprofessional behaviors on the part of educators, whom students feel too vulnerable to challenge [18].

Narrative scripts. Narrative scripts are ideas about the kind of self one ought to become that are internalized and shape students' ideas of what desires, attitudes, behaviors, and dispositions are expected or unbecoming of professionals. They can take the form of declarative injunctions, directives, assertions, and statements as well as messages implicit in such communications. For example, during the medical school orientation process, narrative scripts abound that signal to students their privileged status and new identities:

> You are no longer John or Mary. You are John-physician-in-training. It's part of your identity now.
>
> There are hundreds of people who would kill to be in your spot right now.

Narrative scripts also include warnings and instructions that shape interpersonal interactions and conduct:

> My third-year mentor told me never to ask questions during rotations that you could look up yourself or the doctors will just get annoyed with you. She told us, "They are going to ignore you anyway, so the best thing to do is to try to stay out of the way" (unpublished interview data, 2014).
>
> The most important professional virtue is getting along with your superiors [18].
>
> The professional student would just do the work and not complain [18].

The influence of these scripts extends to the lifestyles and life choices that one should or should not pursue:

> When I asked a physician…who gave a talk on bioethics how he balances family and work life, he told me that if I'm asking those sorts of questions I might want to rethink pursuing medicine in the first place. He told me it takes incredible dedication to learn all that you need to in order to become a competent doctor and that that sort of training requires sacrifice (unpublished interview data, 2014).
>
> If you want a family, you go into pediatrics or ob-gyn or psychiatry (unpublished interview data, 2014).
>
> Dress like you're in the upper class (unpublished interview data, 2014).

When reinforced and internalized, such scripts become taken-for-granted assumptions about the requirements of professional life. In the rare moments in which people are able

to reflect consciously on their influence, the ethical implications of professional cultures can start to become apparent:

> During the chaplain-shadowing program I saw two people die within five minutes…. At one point the chaplain left to get some paperwork and I was left with the mother of the girl that just died. She started talking to me and I started to cry and I felt like all the nurses were staring at me and that I wasn't supposed to be crying. I was supposed to just be observing. The medical student is supposed to be an invisible shadow. We're not supposed to be experiencing, just observing (unpublished interview data, 2014).

Mimesis (imitation). Professional cultures are also sustained through tacit processes of mimesis, or imitation of superiors. Medical students experience much uncertainty and anxiety—about the new jargon they must quickly become familiar with, about the limitations of their own knowledge and skills, about the limitations of current medical knowledge, about how to attract the limited attention of superiors [19, 20] while avoiding humiliation from them, about how to manage enormous drains on their time and energy, and about how to conduct themselves given the numerous conflicting expectations of their new environment [21-23].

In attempting to navigate uncertain environments, people begin to imitate models whom they perceive as successful—as possessing a greater sense of "being" or "fullness" than themselves [24]. Such imitation is not always deliberate. Students learn to become adept at managing others' impressions of them, adopting a "cloak of competence" in front of faculty and patients [25]. They can inadvertently pick up attitudes, such as detachment from or cynicism towards patients, from peers and mentors [26, 27].

Habituation. Both technical skills and social norms are reinforced with regular practice and over time become second nature [28]—a process I have termed "habituation." In learning surgery, for instance, students undergo a process of defamiliarization with their own bodies (e.g., having to alter habitual left- or right-handedness) and become adept at quickly interpreting and responding to a wide range of nonverbal and tacit cues [29]. Habituation also involves the cultivation of new tastes—for instance, derogatory humor towards certain kinds of patients—that may have seemed alien or offensive prior to medical school [30], as well as new dispositions, i.e., durable and socially patterned ways of feeling, thinking, and acting [28]. Decades of research suggest a progressive decline during medical school in students' idealism about the medical profession and empathy towards patients and a concomitant increase in cynicism [10, 11, 31-37], perhaps as a psychological coping mechanism in the face of a stressful socialization process [38]. Some see these changes as evidence of "abuse," "mistreatment," and "traumatic de-idealization" of medical students [39-41].

These processes of cultural transmission are of ethical concern when they have harmful consequences. While some aspects of the hidden curriculum can reinforce formal education—for instance, when students encounter examples of altruism, accountability, caring, and respect [23, 42]—many scholars and educators have expressed concern about

"ethical erosion" among medical students and believe that professional culture generates effects such as that voiced by the following student quoted in a prominent study:

> There are certain things that I do, and I'm not the only one, that I don't think are right. I don't think I should do them but I don't think I have a choice right now. I've got to play the game. I don't know if this is going to be possible, but I hope that later on after I graduate I'll be able to run my practice the way I'd like, and not like you're supposed to do it [23].

If—as research suggests [43, 44]—students believe that their personal values about empathy or other aspects of moral life are at odds with those held by their peers and superiors, their moral commitments may be further weakened. This can become a self-fulfilling prophecy when they, in turn, discourage others from developing or expressing those values [45].

The duration and significance of this ethical decline is unclear. Scholars have long recognized that the professional culture of medical students is not the same as that of practicing physicians [10]. Do purported forms of moral "erosion" such as the loss of idealism and decline in empathy persist after medical school? While some suggest that this erosion is temporary and situational and declines towards graduation [10], others argue that it is long-lasting [32]. Other questions have been raised as well—for instance, about the validity of reported changes in empathy [46] or of survey measures due to changes over time in how the same students interpret the same survey questions [47].

Given the association between physician empathy and clinical competence [48, 49], the long-term ethical effects of structural and cultural aspects of professional socialization merit continued study—out of concern for the well-being of both physicians and patients.

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MEDICINE AND SOCIETY

Derogatory Slang in the Hospital Setting

Brian Goldman, MD

In the on-call lounge late one evening, two residents compared notes on their respective rotations, with four medical students listening in.

"I am totally fried," said Jane, a second-year resident in general surgery. "We spent three hours in the hole digging for an appendix on a 22-year-old woman."

"Why did it take so long?" asked Mike, a resident in internal medicine.

"Let's just say she was a bit fluffy," said Jane. "Exactly three clinic units fluffy. She has a Milwaukee goiter so huge it took two of my students to keep it from getting in the way. We've got her on megadose vitamin C. The over-under on her bounceback for wound infection is six days."

"Sounds like a horrendoma," said Mike supportively.

"Be glad you aren't a surgeon," said Jane.

"IM has its charms," said Mike sarcastically. "I've already admitted three walkers to the floor. Two dyscopias and a selfie who keeps yanking on his food snorkel. The latter is full code, by the way."

"Can't you slow-code him?" Jane asks.

"Nope," answers Mike. "His kids are there 24/7 in shifts."

"You make me feel glad I only have epic goiters to deal with," says Jane.

In the brief exchange above, Jane and Mike's intentions were to vent; to commiserate with one another, sharing some fairly detailed information on the challenges they face; and to bond by using "insider" terms. Here is a glossary of the slang terms that they used:

- *the hole*: used by surgeons to describe the appearance of the operative field in an obese patient undergoing abdominal surgery, when fat has to be moved to the sides to view abdominal structures
- *fluffy*: fat
- *clinic unit*: 200 pounds—"three clinic units" means the patient weighs 600 pounds
- *Milwaukee goiter*: protruding abdominal fat
- *vitamin C*: the antibiotic ceftriaxone

- *bounceback*: readmission
- *horrendoma*: patient or situation fraught with many complications and often associated with a bad outcome
- *walker*: ironic term for elderly patient with dementia and a poor quality of life, often bedridden
- *dyscopia*: difficulty coping at home; often used by internists to imply that the patient requires admission to hospital despite having no obvious acute illness
- *selfie*: a person with a self-induced injury or illness
- *food snorkel*: feeding tube
- *full code*: full cardiac resuscitation according to Advanced Cardiac Life Support (ACLS) guidelines
- *slow code*: slow-motion or half-hearted attempt to resuscitate a patient in cardiac arrest

Argot

The terms listed above are unlikely to be found in any medical dictionary because they are slang terms. The formal name for slang is "argot," which is defined by the *Merriam-Webster Dictionary* as "an often more or less secret vocabulary and idiom peculiar to a particular group" [1]. According to its stated definition, argot permits those in the know to share complex pieces of information without bystanders understanding what they are saying.

The use of slang serves other purposes, too. It creates or reinforces a bond between users. It also creates some emotional distance between the speaker and the event and its impact on patients and family members. Argot also permits those in the know to express regret or even revulsion at having to deal with unpleasant situations. "Code brown," which refers to a conspicuous episode of fecal incontinence, is an example frequently used in the hospital setting.

Argot is not unique to hospital practice; its use is endemic to many kinds of high-stress and high-stakes endeavors. For instance, "FUBAR," "SNAFU," and "BOHICA" are just three of many examples of argot invented by people in the military; all three terms have been used in the world of medicine.

Slang in Medicine

Health professionals began using medical argot during the early-to-mid-twentieth century. That use took off almost exponentially with the 1978 publication of *The House of God* [2], a satirical novel written by Dr. Stephen Bergman under the pen name Samuel Shem that relied for much of its humor on the slang used by interns.

In researching my book *The Secret Language of Doctors* [3], I found a number of anecdotal collections of argot, some containing hundreds of entries. I interviewed hundreds of residents, attending physicians and surgeons, nurses, paramedics, and other allied health professionals. Although many professed not to use slang in everyday hospital discourse, most if not all acknowledged that it continues to be used. I also found that specific subcultures within health care are more likely than others to use slang. Emergency medicine, critical care, and obstetrics are three subcultures in which argot is used frequently.

A survey of American physicians documented that argot is learned in the clinical setting and therefore not commonly used by students until the third or fourth year of medical school [4]. The survey also found that the use of slang peaks during the first postgraduate year (à la *House of God*) and begins to decline during residency.

Derogatory Slang

What has ethical import is slang used to express a negative view of or frustration with certain clinical situations or scenarios, colleagues who work in other specialties or fields of health care, and patients with certain attributes—often without using words that others would recognize as conveying disrespect or frustration. Terms such as "fluffy" and "Milwaukee goiter" cast patients who are morbidly obese in a disparaging light, while the words "dyscopia" and "walkers" do the same for elderly patients with dementia. The term "frequent flyer" is used to describe patients who health professionals believe game the system for benefits other than medical treatment or who, by virtue of their health conditions, must return to the hospital often for ongoing therapy.

The use of disparaging language is not merely a student or trainee behavior, however. There is evidence that at least some attending physicians speak disrespectfully of others in the clinical setting. In a 2012 study, 40.3 percent of hospitalists said they had made fun of other physicians, 35.1 percent confessed to making fun of other attending physicians to colleagues, and 29.8 percent admitted to making disparaging comments about a patient on rounds [5].

Labeling patients with derogatory terms is inherently disrespectful. There can be little question that speaking derisively of patients or colleagues is unprofessional. The teachers of medical professionalism might argue that use of slang should be eliminated in the hospital. Some hospitals post policies condemning as unprofessional the use of disrespectful language directed at patients, colleagues, and allied health professionals [6]. While the strategic goal of promoting respect in the workplace is laudable, the tactic of monitoring and prohibiting disrespectful speech could have the unintended effect of driving the use of such language underground.

It might be more effective to merely discourage, rather than ban, such language and more enlightening to explore why it is used. The slang used by Jane to describe obese patients is an instructive example. While disparaging such patients is to be condemned roundly, it is important not to overlook genuine frustrations experienced by physicians in caring for them. It is more difficult to intubate obese patients and often much more difficult to perform routine surgery on them. Complication and readmission rates are higher. Such patients require much more of the physician's time. With the growing number of obese patients, the drain on medical human resources is increasing with no obvious end in sight. And that is not the end of the problems. Morbidly obese patients require bariatric hospital beds, stretchers, patient lifts, operating room tables, wheelchairs, and toilets located in their rooms. Wrote Kathryn Pelczarski in a 2007 article published in *Materials Management in Health Care*,

> Having a 400-pound individual in the emergency room has become a routine occurrence for many hospitals, yet hospitals continue to be caught unprepared…. At many hospitals, staff still struggle to transfer a patient from a bed to a chair because no patient transfer aids or lifts are available. This practice constitutes a significant risk of serious injury to both patients and staff [7].

Addressing the equipment and personnel deficits that give rise to such frustration would alleviate the problem and, perhaps, eliminate some professionals' impulse to resort to such slang.

Likewise, the argot used by Mike to label the elderly patients on his service, while undoubtedly unprofessional on his part, may well point to a larger issue in the culture of medicine. Terms like "walker" and "dyscopia" could convey a feeling of helplessness to improve such patients' quality of life. Characterizing active treatment of elderly, infirm patients as medically futile may also indicate an implicit cultural bias against treating such patients. Studies have shown that Do Not Attempt Cardiopulmonary Resuscitation (DNACPR—formerly known as Do Not Resuscitate or DNR) orders are independently associated with patients having fewer treatments, fewer admissions to critical care units, and worse outcomes [8-10]. DNACPR orders have been shown to act as "unofficial 'stop' signs and can often signify the inappropriate end to clinical decision making and proactive care" [11]. Bringing attention to these beliefs might change physician behavior and patient outcomes.

Conclusion

To facilitate reflection about attitudes and feelings, it would be better to address the use of derogatory slang in a nonpunitive way. Instead of merely condemning disrespectful talk, it might be more effective for medical educators to pay attention to it and use it to confront the issues it points to. It would be most helpful to call attention to this kind of talk in reflective sessions with residents such as Jane and Mike as well as one on one.

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SECOND THOUGHTS

Promoting the Affordability of Medical Education to Groups Underrepresented in the Profession: The Other Side of the Equation

Marc J. Kahn, MD, MBA, and Ernest J. Sneed, MD

In spite of best efforts by the Association of American Medical Colleges (AAMC), the American Medical Association (AMA), and other national groups, entering medical students remain a relatively homogeneous group, with many backgrounds underrepresented. Although the combined percentage of people in the US from African American, Native American, and Hispanic backgrounds is 31 percent [1], only roughly 15 percent of current medical school applicants, 12 percent of medical school graduates [2], and 6 percent of practicing physicians [3] are from these ethnic backgrounds. Given that, by the year 2050, the racial and ethnic minority populations in the US are projected to comprise nearly half the population [4], this underrepresentation looks likely to grow if left unchecked.

Having a diverse medical school class and physician workforce is important to the future of health care in the United States. Several studies have shown that students from underrepresented groups are more likely than whites to provide health care services in underserved communities. For example, a 2012 study of California physicians found that, regardless of specialty, African American, Latino, and Pacific Islander physicians were more likely to practice in underserved or health shortage areas than their white counterparts; in certain specialties, Asian physicians were also [5]. The AAMC reported that, among students entering medical school in 2011, 54.6 percent of African Americans, 36 percent of Hispanics, and 33.6 percent of American Indians or Alaska Natives had career plans to work in underserved areas, compared to 19.4 percent of Asians and 21.4 percent of whites [6]. Diversity also enriches the classroom experience. The ability to form relationships with those whose demographic attributes differ from one's own is an essential skill, and diversity in the medical school class enhances this competency.

Why have we failed to achieve a diverse medical workforce? Attending medical school in the US is a costly endeavor. US medical students graduate with a median debt of $180,000, and 43 percent of them have borrowed at least $200,000 [7]. Concerns over educational debt can have a strong influence on the decision to attend medical school. In the 2011 entering medical school class, 60.5 percent of African Americans, 45.7 percent of Hispanics, and 42.1 percent of American Indians or Alaska Natives already had debt. For approximately half of African Americans, Native Americans or Alaska Natives, and Latinos, that debt involved $25,000 or more in outstanding educational loans [6]. The majority of all matriculants planned to finance the bulk of medical school costs with loans [6]. Delayed earnings and high educational debt can be an intimidating hurdle, especially for first-generation college and first-generation medical school students.

Secondly, the medical school admissions process favors applicants whose physician relatives and access to money afford prestigious experiences and shadowing opportunities. One in five medical students has a parent who is a physician [8]. The AAMC explains that the percentage of medical students from families in the highest quintile of household income has not dropped below 48 percent since 1987—half of students come from the richest 20 percent of the population—while the percentage of students from the lowest quintile has never risen above 5.5 percent [9]. Moreover, the percentage of entering medical students from families in the highest quintile of household income increased from 50.8 percent to 55.2 percent between 2000 and 2005 [9]. Given that members of marginalized groups are disproportionately likely not to be well-off and not to have had access to medical education in eras past, favoring these résumé boosters ultimately tips the scales toward the already privileged—in the US, generally the rich and white. Even expecting high academic achievement indirectly favors these applicants.

Another significant contributor to the disincentive for students from underrepresented groups and lower-income families is the financial messaging to medical school applicants. The press, blogs, and even materials from the AAMC stress the high cost of a medical education. For example, the website of the FIRST for Medical Education Program, which provides information for students and families regarding financial aid, student debt, and money management [10], emphasizes the high cost of a medical education and warns about the cost of interviewing and applications [11]. There is even a subsection titled "Signs You Could Be Heading for Trouble" [12]. Unfortunately, there is little mention in the press of the other side of the financial equation, namely that entering the medical profession is a sound financial investment as well as a satisfying and personally rewarding career. In fact, it is estimated that a US medical degree has a "net present value"—the future value less the cost of acquiring it—of well over $1 million [13]. This high value means that a US medical degree is perhaps the most valuable degree in the world.

What can be done? To maintain a physician workforce that is diverse both ethnically and socioeconomically, we need to stress the other side of the equation. Namely, we need to inform all students that, although going to medical school is expensive (the cost side), becoming a physician is a sound financial investment (the revenue side). We need to take advice from our colleagues in business and market our product.

The "4 Ps" of marketing—product, price, promotion, and place—provide a good place to start. Our product is a career that is personally satisfying and allows for tremendous personal growth. We need to market the facts that money is available for the study of medicine and that borrowed money can be paid back on a physician's salary, and we need to provide financial education explaining the role of debt, investment, and return. Creating financial literacy is critical to ensuring a diverse physician workforce.

We need to make students aware of careers in medicine early in their educations, beginning in high school. This could be accomplished, for example, through summer programs that expose high school students to health care fields [14]. Programs that expose students to the disparities in the US health care system have been shown to increase applications to medical schools from students from minority backgrounds [15].

We also need to be creative about developing talent among socioeconomically disadvantaged students. One method of doing so is employing programs that deemphasize typical academic milestones and coach students to develop knowledge and skills independently of their age or educational stage [16].

Lastly, we need to revise our admissions policies to prioritize creating a diverse medical school class, rather than selecting for achievements mostly open to the already privileged. Not every worthy applicant can afford to participate in international experiences or has a physician parent or grandparent who can arrange shadowing opportunities and other exposures to the medical field.

Barriers to medical education can and will decrease the diversity the medical profession should have to care for our complex society. To care for the generations of the future, solid efforts should be directed at revising admissions standards, developing programs to expose high school students to careers in medicine, and improving the financial literacy of medical school applicants so that all applicants, regardless of socioeconomic or ethnic background, view medicine as a viable career option.

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