

bill,² which would grant waivers from ACA requirements in 2014 if states can meet the ACA's goals. The Vermont single-payer plan certainly can.

Perhaps we are at the dawn of systemic reform in U.S. health care. The Vermont single-payer plan will never be as efficient as Taiwan's or Canada's because it must work within the bounds of federal laws and programs and the realities of porous state borders. Nevertheless, it can produce substantial savings to fully fund

universal coverage, reduce health care costs for most businesses and households over time, and reform a fragmented delivery system. Of course, someone will bear the burden — mostly the private insurance industry and high-wage businesses that don't currently offer insurance. But if Vermont can navigate its political waters and successfully implement this plan, it will provide a model for other states and the country as a whole.

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From the Department of Health Policy and Management, Harvard School of Public Health, Boston.

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BECOMING A PHYSICIAN

Into the Water — The Clinical Clerkships

Katharine Treadway, M.D., and Neal Chatterjee, M.D.

Editor's note: This Perspective article about the effect of the clinical clerkships on the professional development of medical students was written from the alternating perspectives of a teacher and long-time clinician, Katharine Treadway, and a third-year medical student, Neal Chatterjee, who is now an intern in internal medicine.

Neal Chatterjee: There's nothing particularly natural about the hospital — ever-lit hallways, the cacophony of overhead pages, near-constant beeps and buzzes, the stale smell of hospital linens. This unnaturalness was strikingly apparent to me when I arrived as a third-year medical student — freshly shaven, nervous, absorbent — for the first day of my surgical clerkship.

As I joined my team, my resident was describing a recent patient: "He arrived with a little twinge of abdominal pain . . . and he left with a CABG, cecectomy, and two chest tubes!" This remark was apparently funny, as I surmised from the ensuing laughter. And the resident sharing the anecdote — slouched in his chair, legs crossed and coffee in hand — seemed oddly . . . comfortable.

As the year — known at Harvard Medical School as the Principal Clinical Experience — proceeded, the blare of announcements dulled to a low roar, the beeps and buzzes seemed increasingly distant, and the stale smell of hospital linens became all too familiar. Occasionally, however, there were moments that evoked a twinge of my old discomfort, some inchoate sense that what had just transpired mattered more deeply than I recognized at the time. These moments were often lost amidst morning vital signs, our next admission, or the differential diagnosis for chest pain.

At the end of the year, we were asked to reflect, in writing, on our first year in the hospital. What eventually filled my computer screen had nothing to do with vital signs or chest pain.

I began to write, "I have seen a 24-hour-old child die. I saw that same child at 12 hours and had the audacity to tell her parents that she was beautiful and healthy. Apparently, at the sight of his child — blue, limp, quiet — her father vomited on the spot. I say 'apparently' because I was at home, sleeping under my own covers, when she coded.

"I have seen entirely too many people naked. I have seen 350 pounds of flesh, dead: dried red blood streaked across nude adipose, gauze, and useless EKG paper strips. I have met someone for the second time and seen them anesthetized, splayed, and filleted across an OR table within 10 minutes.

"I have seen, in the corner of my vision, an anesthesiologist present his middle finger to an anesthetized patient who was 'taking too long to wake up.' I have said nothing about that incident. I have delivered a baby. Alone. I have sawed off a man's

leg and dropped it into a metal bucket. I have seen three patients die from cancer in one night. I have seen and never want to see again a medical code in a CT scanner. He was 7 years old. It was elective surgery.”

In a 2005 commencement address, the writer David Foster Wallace told the story of two young fish swimming along.¹ An older fish swimming by greets them, “Morning, boys. How’s the water?” As the young fish swim on, one looks at the other and says, “What the hell is water?”

The third year of medical school is like being thrown head first into water. Although the impact is jarring, eventually the experience becomes natural. We become comfortable — legs-crossed, slouched-in-a-chair, coffee-in-hand kind of comfortable. Occasional moments, however, remind us that we are immersed in water. If we focus on them closely, we see that our lives are filled with these moments. The challenge is to collect them in a meaningful way — to spend time with them, wrestle with them, allow the discomfort they generate to sit inside us.

Katharine Treadway: Those of us who are fully acculturated into medicine can easily forget the power and turmoil of the third year and why it looms so large in physicians’ development. Studies have documented the high level of compassion with which students enter medical school and the sharp decline that occurs during the ensuing 4 years.² Jack Coulehan captured this phenomenon poignantly when he asked, “How does professional socialization alter the student’s beliefs and value system so that a commitment to the well-being of

others either withers or turns into something barely recognizable?”³

Most of this decline occurs in the third year.⁴ It is ironic that precisely when students can finally begin doing the work they believe they came to medical school to do — taking care of patients — they begin to lose empathy.



The third year is generally the entry into the clinical experience, when medical students move from the classroom to the hospital. They perceive their task as learning how to apply to actual patient care the knowledge they’ve gained in the first 2 years. They do not understand the potential impact of the experiences and the environment in which their learning takes place. The “water” that surrounds them and of which, like the young fish, they may be largely unaware, is the hidden curriculum⁴ — all those behaviors and events that students observe and experience that may be at significant variance with what they’ve been

taught. The impact of this hidden curriculum is profound.

It is powerful for three reasons. First, students are entering a foreign world where they face difficult, often overwhelming experiences. Second, the rules governing the responses to these experiences are unclear. It is not obvious to students that the beliefs and ideas with which they entered school still apply, so they take their cues from the behaviors they observe. Furthermore, since responses to these events are rarely discussed, students often erroneously ascribe a detachment and lack of caring to house staff and senior physicians. Third, these experiences have frequently gone unacknowledged and unexplored.

For the past few years, I have been a mentor to medical students during their clerkship year. As they have their first experiences with patients dying, they don’t know how they should respond, whether it’s OK to be upset. One student told me about his confusion when a patient he’d admitted to the hospital died and no one on his team even remarked on the death. It made him feel he wasn’t supposed to care. When, days later, his intern mentioned how bad she felt about losing the patient, he was relieved — it made him feel he was normal. His story revealed how vulnerable medical students are to the influence of behavior that contradicts their belief systems. At the beginning of medical school, most students would find it inconceivable that they might ever think it abnormal to care that a patient died. That the student even considered this possibility illustrates how fragile students’ ideas of physicianhood can be.

In a 1989 lecture on medical training, the medical sociologist Renee Fox remarked, “As they struggle, individually and collectively, to manage the primal feelings, the questions of meaning, and the emotional stress evoked by the human condition and uncertainty aspects of their training, medical students and housestaff develop certain ways of coping with them. They distance themselves from their own feelings and from their patients through intellectual engrossment in the biomedical challenges of diagnosis and treatment, and through participation in highly structured, in-group forms of medical humor. By and large, medical students and housestaff are left to grapple with these experiences and emotions on their own. . . . They are rarely accompanied, guided, or instructed in these intimate matters of doctorhood by mature teachers and role models. Generally their relations with clinical faculty and attending physicians are too sporadic and remote for that.”⁵

How can we teach compassionate care as a learned skill in the same way that we teach the physical exam or the fundamentals of physiology? Clearly, the first step is to acknowledge that this is a skill to be taught. I believe that the question often posed — “Can you teach students to care?” — is the wrong question. In my experience, most students enter medical school caring deeply, and we actually teach them not to care — not intentionally, but by neglect, by our silence. We place them in profoundly disturbing circumstances and then offer no support or guidance about what to do with the feelings they have in abundance. So

the issue is teaching students and residents the *how* of caring — helping them know what to do with their feelings and those of their patients.

Increasingly, medical schools are recognizing the need for more structured ways to teach students how to understand and cope with their third-year experiences. Many schools have launched formal curricula to guide students in self-reflection. Others have created longitudinal experiences in which senior physicians offer students closer guidance.

Four years ago, we changed the structure of the third year at Harvard Medical School. Instead of undertaking a series of isolated clerkships that were frequently offered at different hospitals, students now spend the entire year in one institution. Each major teaching hospital also has a longitudinal component that includes clinical case conferences conducted at a student level and a biweekly meeting to explore students’ experiences.

Neal Chatterjee: During my third year, I met with eight classmates for 2 hours every other week. What initially seemed an intrusion into our busy lives became an almost sacred space for recognition — both recognition that others felt similarly challenged, uncomfortable, and uncertain and recognition of moments that would otherwise have remained buried under Noon Conference attendance and potassium repletion. Most important was the shared nature of this collective self-examination, which helped buffer the inevitable discomfort and emotion that these moments generated.

Given the long hours, inces-

sant pages, and expanding responsibility of the clerkships, the transformation of the extraordinary to the mundane seems an inevitable consequence of medical training, a survival mechanism. The shared reflection and consideration we engaged in empowered us to take control of that transformation. While exploring some moments helped us to cherish their wonder and retain the humility they inspired, focusing on others helped us to strengthen our advocacy for patients.

During my intern year, this reflective power has stayed with me. An experience that might otherwise seem to be an errant thread is now held carefully and closely — and eventually woven into the fabric of my training.

Katharine Treadway and Neal Chatterjee: We believe that reflection that is integrated with clinical experience, not separate from it, is critical to students’ professional and emotional growth. The creation of a “safe space” for reflection and discussion can disempower the hidden curriculum by exposing it, allowing both positive and negative experiences to be used to reinforce values and behaviors conducive to the development of compassionate, emotionally engaged physicians. By being attentive to the complicated, challenging, and wondrous moments that define physicians’ lives, we can nurture this essential awareness. And we can begin by simply looking around us: this is water.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From Massachusetts General Hospital and Harvard Medical School — both in Boston.

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