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Time matters in caring for patients
Twenty minutes isn’t enough

Richard L. Byyny, MD, FACP

The good physician knows his patients through and through, and his knowledge is bought dearly. Time, sympathy, and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.

Francis W. Peabody

Despite rapidly developing new technologies and advancements in medicine, how we actually care for our patients continues to be our most important professional responsibility. The care of the patient is based on what each patient needs; what is most important for each patient and family; and what patients and their families need to understand to cope with their health, illnesses, and suffering.

The qualities that we physicians bring to our patients and society are many, but most important, we need to be present and engaged with our patients as individuals. The doctor-patient relationship remains the core of our professional responsibility, and our profession. Sir William Osler wrote, “the good physician treats the disease; the great physician treats the patient who has the disease.”

We have made incredible progress in diagnosing, preventing, and treating diseases which has reduced deaths and extended the life expectancy to an age never before seen in history. Yet, many factors introduced by our third-party payer system and the corporatization and businessification of medicine adversely affect the doctor-patient relationship. Patient care has become increasingly impersonal, hurried, and commercialized. Doctors and the way we practice medicine are controlled by insurance companies, corporations, health maintenance organizations, and for-profit medical organizations. This results in inadequate time for doctors with patients, and the healing power of the doctor-patient relationship is often impaired or forgotten.

Peter Dans, MD, wrote,

When the AMA [American Medical Association] agreed to drop its opposition to Medicare and Medicaid in the 1960s, it exacted a promise that the new laws would incorporate its “usual, customary, and reasonable” fee system. This paid disproportionately for hospital visits, surgery, and technologic procedures for treating acute illness, as opposed to office visits for maintenance treatment of chronic illnesses or for prevention. The legislation also accommodated hospitals by agreeing to pay all their costs plus 2 percent. This favored the development and use of costly technology and instrumentation in larger and more complex institutions. Medical care, once considered a “cottage industry” became “corporatized,” or in the words of Arnold Relman, MD, editor of the prestigious New England Journal of Medicine, a “new medical-industrial complex.” No longer could the profession’s ethos be set by a Hippocrates, Sir William Osler, or the few distinguished leaders and institutions that dominated it until the 1950s.

The most important way to improve patient care through the doctor-patient relationship is to increase the amount and quality of time for the doctor to spend with his/her patient in the clinic or office.

What doctors and patients need is more time, not more technology.

—Malcolm Gladwell
Many organizations and insurance companies purposefully limit or decrease doctor-patient time, and align financial incentives for doctors with the plan’s commitment to greater profit, and other goals that are unrelated to those of doctors or patients. Time limitations must be addressed and recognized as a critical requirement in the care of patients. The doctor-patient relationship in which a history, clinical examination, thoughtful communication, diagnostic reasoning, diagnoses and plans, and medical and other caring interventions are made, remains the keystone of care. Effective doctor-patient communication cannot be accomplished in a strict, time-limited, fifteen- or twenty-minute appointment.

Dr. William Watts Parmley observed that the care of the patient is a distinct human interaction that is set apart by its sovereign confidential nature which includes a thorough physical examination; discussions of disability and death that directly relate to the patient; diagnostic tests and therapeutic interventions with which the physician is directly or indirectly involved; and an atmosphere of respect for individual dignity. It is characterized by trust, compassion, humanism, professionalism, and high moral and ethical standards.\(^5\)

**Much stands in the way**

Limiting the time spent with patients while increasing the “efficiency” and “productivity” of the interaction—the assembly line approach—often destroys any meaningful
The doctor-patient relationship. For many physicians who are tied to a computer and the electronic health record, it becomes easier and more “efficient” to spend their limited time with the patient entering information into the computer, and ordering tests and consults (see *The Pharos* Summer 2015 editorial “The tragedy of the electronic health record” pp 2–5). This makes the actual one-on-one time for the patient and doctor even more constricted, and often is very frustrating for the patient. Limitation of time also contributes to dissatisfaction as well as physician burnout. Sufficient time to care for patients and help them—and their families—to care for themselves is what patients, especially those with chronic diseases and socioeconomic influences, need most.

Studies have demonstrated an association between shorter visits and increased rates of medication prescribing, as well as increased risk factors for inappropriate prescribing. In addition, shorter visit length and patient perceptions of rushed doctors who spend less time with them has been associated with an increase in malpractice claims and a predictor of outcomes in malpractice claims. One of the primary sources of physician satisfaction is patient relationships, with the primary source of dissatisfaction being “time pressure.” There is a direct correlation between higher physician satisfaction and higher quality of care when physicians explain the treatment plan to the patient, and pay attention to psychosocial aspects of the patient’s care. This also results in more moderate prescription rates.

In a 2009 report, Lizner, et al., found that 53% of physicians complained about time pressure during office visits. The time pressure was associated with low job satisfaction, stress, burnout, and intent to leave the practice of medicine all together.

In the current business model, the physician’s time becomes a constrainable resource to accommodate greater patient volume for increasing revenue, often at the doctor’s expense of working longer hours. The total patient load or schedule has not actually decreased. However, the physician now spends time on distractions—interacting with insurance companies, staff motivation to decrease costs and increase reimbursement, administrative responsibilities, practice controls, charting, working with the electronic health record, ordering tests, writing prescriptions, ordering consultations, attenuating litigation risks, and a multitude of other diversions and responsibilities that restrict face-to-face care of the patient. All of these activities must be completed in a time-limited fifteen- to twenty-minute patient appointment.

**Assembly lines are not possible**

The business model of an assembly line approach to patient care completely ignores the fact that there is no average patient with the same design, problem, cause, and effect. People are not mass produced, all from the same mold with uniformly engineered parts and systems. Our current standard ignores the individuality of each patient, and the time needed to address his/her health, and medical issues. As Gladwell stated, “What my mother needs is a doctor who knows her and someone who can understand her.”

The reasons for inadequate one-on-one time between physicians and their patients are mired in the complexities of an evolving payment system.

Taking into account the amazing advances in science; medical technology; diagnostic testing and interventions; and myriad different medications, with new ones coming out everyday, logic would dictate that the time allotted for patient visits should be much longer. These wonderful advances in medicine have provided us with patients who are living longer—often into their 80s, 90s, and even 100s—and who have multiple chronic medical and psychological issues. However, the business aspects of caring for the patient haven’t kept up, and, if anything, have adversely affected patient care.

**The history of billing and coding**

To further understand the evolution in the care of the patient related to time and reimbursement we must review the creation of the relative value unit (RVU) set by Medicaid, and the Current Procedural Terminology (CPT) set by, and copyright protected by, the American Medical Association.
Historically in America, usual, customary, and reasonable was the standard used to establish health care prices.\textsuperscript{10} W. A. Glaser, MD, once noted that “paying the doctor is inherently political.”\textsuperscript{11} Over time, politics related to public expenditure on health care have involved working out conflicts of interest between the payers for health care and the medical profession—including the interests of medical specialties and special interest groups. This has been evolving for more than fifty years.

Originally, the American health care delivery system, consisting primarily of a country doctor and a local hospital, was developed based on charging customary, prevailing, and reasonable rates. The basic principles were to maximize professional freedom and minimize conflicts with payers.

Medicare payment was very contentious when it was implemented in 1965. Doctors could accept the Medicare payment, or they could bill the patient the difference between their charges and what they received from Medicare.

In the 1980s, it was clear that change was needed. Fee schedules were reviewed and updated based on financial value and negotiations with payers for cost controls. However, the attempt to have competitive markets determine pricing of services resulted in fee schedules no longer being published, and many organizations that had fee schedules eliminated them.

In 1985, politicians with some input from medical organizations decided to replace the customary, prevailing, and reasonable charge system with a formula reimbursement system. A team from the Harvard School of Public Health, the American Medical Association, and several specialty groups were charged with developing a medical reimbursement system to provide fee-for-service utilizing fee schedules. However, they were constrained because it is easy to measure time for visits and procedures, but very difficult to measure complexity and difficulty of the patient and their maladies independent of time.

This extremely intelligent group forgot a very important factor when developing their new system—“Not everything that counts can be counted, and not everything that can be counted counts,” as noted by Cameron and Einstein. Time for the doctor-patient relationship wasn’t included.

The Harvard-based team decided to utilize dimensions of complexity, including judgment, skill, physical effort, and stress due to risk. Specialty groups argued for relative weighting because the fees would determine income. Eventually, they decided to weight the time, practice costs consumed, difficulty, and skill for each procedure. However, the data and information to accomplish this did not, and does not, exist.

The major constraint was budget neutrality, which perpetuated the historical income differentials by specialty. The enactment of the relative value system (RVS) was an imperfect political process because it was designed as a Medicare-only method of paying doctors rather than a comprehensive health insurance system.

In 1992, Medicare changed the way it pays for physicians’ services by establishing a standardized physician payment schedule configured on a resource-based relative value scale (RBRVS). Payments for services are determined by the resource costs needed to provide the particular service. The cost of providing each service has three components: physician work, practice expense, and professional liability insurance. Payments are then calculated by multiplying the combined costs of a service by a conversion factor, which is a monetary amount that is determined by the Centers for Medicare and Medicaid Services. The physician work component accounts for, on average, 48% of the total relative value for each service.

The factors used to determine physician work include the average time it takes to perform the service (whatever average is for patients suffering from acute and chronic illnesses); the technical skill and physical effort; the required mental effort and judgment; and stress due to the potential risk to the patient. The practice expense accounts for an average of 48% of the total relative value for each service based on a resource-based practice expense relative value for each CPT code at the site of service. The professional liability insurance RVU accounts for 4% of the total relative value for each service.

CPT codes are a list of descriptive terms, guidelines, and identifying codes for reporting medical services and
procedures designed to provide a uniform language that describes medical, surgical and diagnostic services to bill and inform third party payers. There is a defined code for all health care visits and procedures—office visit; hospital visit; home visit; nursing home or facility visit; surgery; labor and delivery; office procedures; tests; as well as the physician’s “cognitive work.” There are thousands of CPT codes, which, combined with the Resource-Based Relative Value Scale (RBRVS), value physician services using RVUs.

Evaluation and management codes (E/M)—the process by which physician-patient encounters are translated into CPT codes—are defined by the service provided for the patient and include patient type (new or established; setting of service) office, hospital, emergency department, nursing facility; level of evaluation and management service performed. They relate to history, which includes chief complaint, history of present illness, review of systems and past/family/social history, and examination and medical decision-making. These are then categorized by the level for each component.

This is an extremely complex system not necessarily related to the care of the patient, good decision-making, or outcomes.

Medicare allows only for the medically necessary portion of the visit, even if patient care requires more time and effort for patient interactions that are considered “not medically necessary.” Only what Medicare considers the necessary direct services for the condition of the patient at the time of the visit can be used in determining the level of an E/M code. Time spent reviewing medical records, talking with other providers, documenting the encounter without the patient present cannot be considered and reimbursed.

Physician time can only be charged for prolonged services after a minimum of thirty minutes beyond the typical time listed in the highest code set. Medicare allows for charges for each thirty minutes over the initial time if it is documented in the medical record. Also, the additional time charges must be face-to-face time with patients, not other work related to the care of the patient.

In addition, the physician payment plan has not established uniform charges by geography, community, or within specialties. Data continues to demonstrate that the same “procedure” can vary dramatically within the same community or region.

### Doctor vs. car mechanic—who gives more time?

Confused yet? Let’s compare taking your car to a mechanic with going to the doctor for a medical problem. In both situations you have to wait for an appointment unless it is an emergency. However, almost no routine automobile service lasts only fifteen to twenty minutes; but a routine physical examination with a doctor is supposed to fit into that time frame.

Consider the average middle-aged man with hypertension and high cholesterol who drives a 2011 Volvo. The regular maintenance schedule for his car is every 10,000 miles. According to a J.D. Power and Associates 2013 U.S. Customer Service Index (CSI) Study, car owners visit a dealer service department an average of 2.6 times per year. This means that the aforementioned man will most likely see his doctor twice a year for a total of forty minutes, and his car mechanic three times a year, usually for at least an hour or two each time. He will be spending more time with his car mechanic than face-to-face with his doctor.

The human body is much more complex than a car’s engine. Humans have millions of interactive parts that have
evolved over long periods of time, and are not designed by engineers and built by factory workers with the goal of having all of them come off the assembly line exactly the same. Choices with car repairs are different from an individual’s health and quality of life. It would be nice if patients could spend as much time with their doctors—or more—than they do with their car mechanics.

**The medical value to the patient**

The medical value to the patient of a service is not considered in how much is paid for the service. There is no financial remuneration to the physician for spending time on outcomes and improving health. The focus is purely on providing services in a specified time allotment with no consideration of effectiveness or elegance. There is no recognition that an “average” patient doesn’t exist.

The strict fifteen- to twenty-minute patient visit means physicians frequently spend too little time with their patients to understand them and their suffering, to converse, assess, reason, and communicate with their patients. Extra time for doctors with their patients has been shown to contribute to better outcomes, fewer complications, better overall patient health, decreased emergency room visits, and fewer hospitalizations. A patient coming to see a physician rightly wants the visit to take as long as reasonably required.

The shortened time allotment assumes that every symptom can easily and quickly be translated into a problem with a simple answer and solution. A hurried, task-oriented patient visit doesn’t address the numbers and complex issues of patients or the caring and humanism of the doctor-patient relationship.

Physicians are taught to use clinical reasoning and logical deduction through evolving dialogue that is critical to understanding, responding, and adapting as part of the care provided. Clinical reasoning involves nonanalytical reasoning combined with analytical reasoning.

Nonanalytical reasoning uses rapid, unconscious pattern recognition based on stored knowledge of examples or “algorithms.” It is rapid, intuitive, simple, and usual in routine and uncomplicated patients. Nonanalytical reasoning is prone to bias, errors in diagnosis, and premature closure of the reasoning process.

Analytical reasoning is a complex and time-consuming process that requires reasoning with incomplete data, memory, assimilating new information, and excellent human communication. Excellent analytical reasoning is slow, deliberate, sequential, systematic, reflective, laborious, and uses many different cognitive pathways to diagnose complex cases and clinical problems. It is used to arrive at the best or correct diagnosis, and to prevent bias and diagnostic errors. Adequate time is essential for the physician to think and reason about a patient, the illness, suffering, and worries. Time, mindful adaptability, attention to detail, and information on past events, are integral to the physician’s role using clinical intelligence, experience and conversation in reasoning on behalf of the patient. The physician needs the time to conduct analytical reasoning in every patient encounter to ensure the best outcomes for all involved.

Lack of adequate time results in the inability to consider all the available information and use analytical reasoning to reach the most accurate diagnosis. In a study conducted by Evans, et al., of 750 patients in a primary care clinic, 98% had at least one expectation before the medical visit—information on their diagnosis and prognosis. Failure to address diagnosis and prognosis was the most common cause of unmet patient expectations. Patients who received the information they were seeking experienced better symptom relief and functional outcomes. Simply put, patients want a personal relationship with their doctor, good communication, empathy—and time.

**It’s time for a new system**

After twenty-four years of physician billing and compensation using CPT codes and RVUs, which is based on an impression of what average patients need in a visit, we need to review and revamp the system to improve access and quality.

The Centers for Medicare and Medicaid Services (CMS) is making small steps to modify the payment system. Starting just this year, they began covering advance care planning—discussions that physicians have with their
patients regarding end-of-life care and patient preferences—as a separate billable service. This is definitely a step in the right direction, but not enough. CMS needs to revolutionize the entire compensation system and develop a completely new payment system that would reflect the cost to the doctor of providing quality care with better results.

A new payment system would recognize that adequate time for the doctor with the patient is fundamental; that human beings are amazingly complex and more than the sum of their cells, organs, and diseases.

A new payment system would take into account that today’s patients usually do not have isolated problems, but come with two, three, or more health issues that are not interconnected. And, that these patients and their families are worried and suffering.

Physician payment reform requires national political leadership and a recognition that the time has come for change. In the over-studied and over-documented field of health care finance, legal and administrative mechanisms need to be drafted and introduced quickly for urgent reform.

We must develop a new, twenty-first century physician payment system for the care of patients that allows the physician and patient the ability to manage their health, suffering, and illnesses in a time period that recognizes and accommodates today’s changing health care environment.

Physicians must lead, and have a central role in, the process of devising, designing, approving and implementing a new medical care payment system. Any new system must be considerate of the costs to individuals and society.

This new system must put the patient first, and revenue and profit second.

References

1. Peabody FW. The Care of the Patient. JAMA 1927; 88: 877.


Confessions

Today I held your heart. I put my fingers around your vessels. I washed until they glowed and your blood shook out in so many shades of rust. And, yes, it’s true, only the other morning I broke your spine. I shivered at your bony ridges, the color of so many whitened trees in winter. Afterwards, I carved into your wrinkles until I found that startled dark pink, and I uncurled your stiff fingers to lay my thumb on your palm, your tendons drawn under the weak October light.

I want you to know that this is beautiful—your barrel chest and wasted thighs, your singing neck and painted nails, even the crusts on your skin and the hair on your upper lip. I want you to know that of those who have held you close, I have held you closer, my hands cradled around your brain or pressed warm against your ribs. In the end, I want you to know how we smell you on our skins as we walk to the locker room, how we undress, our backs turned in modesty, covering our secrets—what we are naked and on the inside—your body reflected in all of ours, no perfect mirror but enough to make us nervous, so awed and almost fearful at the quiet pulse within us.

Jennifer Hu

Ms. Hu is a member of the Class of 2018 at University of Rochester School of Medicine and Dentistry. Her poem won first prize in the 2015 Pharos Poetry Competition. Ms. Hu’s e-mail address is jennifer_hu@urmc.rochester.edu.

Illustration by Erica Aitken.
It is with a heavy heart that we are saying goodbye to our dear friend and colleague Debbie Lancaster. After twenty years of dedicated service to Alpha Omega Alpha and The Pharos, Debbie has decided to retire.

Over the years, Debbie has worked hard to uphold the prestige and quality of The Pharos as a one-of-a-kind, prestigious publication read by thousands across the country and around the world. She has thoroughly enjoyed working with the authors and the Editorial Board. She has always been a stickler for correct references, and enjoyed searching for the perfect piece of art to draw out a story’s essence. She has worked tirelessly to ensure the unique beauty of the publication, its articles and illustrations.

Not only the Managing Editor of The Pharos, Debbie has worn many hats during her tenure at AΩA. She has done nearly every job in the office. She is an outstanding problem-solver, negotiator, office manager, technical consultant, programs manager, fundraiser, writer and editor.

The debt of gratitude we owe Debbie is immeasurable. Her legacy will live on in our hearts and in the work we continue to do to support our members and chapters, and further the mission of AΩA. Debbie has laid the groundwork to ensure AΩA’s continued success and advancement.

Thank you, Debbie, for your dedication, commitment and indefatigable devotion. We wish you the very best in your retirement!

Richard L. Byyny, MD, FACP, Executive Director
Erica Aitken, The Pharos Graphic Designer
Jane Kimball, Director of Membership Services and Communications Officer
Laura Kimball, Administrative Assistant
Bill Nichols, Assistant Treasurer to the Board of Directors
Dee Martinez, Chief of Staff, and The Pharos Managing Editor
Jim M’Guinness, The Pharos Creative Director
Susan Mullaney, Database Technologist
Barbara Prince, Controller
Laura, your first assignment is on the neurological effects of migraines and their impact on the human psyche.

Your next assignment is from the perspective of someone who lost his entire family to anaphylaxis and then became ill from complication of a stubbed toe.

Next, we need a drawing for an article about paresthesia and the long-term effects of gustatory rhinitis in children.

Debbie,

Thank you so much for never underestimating me over the years and for supporting my growth as an artist. I really appreciate the opportunities you’ve given me and I wish you all the best in your next ventures. We’ll miss you at the Pharos! I hope you stay in touch!

—Laura
The Harlem assassination attempt on Martin Luther King, Jr.

Don K. Nakayama, MD, MBA

The author (ΔΩΑ, University of California, San Francisco, 1977) is in practice in pediatric surgery in Pensacola, Florida. Much of the information in this article can be found in Hugh Pearson’s When Harlem Nearly Killed King: The 1958 Stabbing of Dr. Martin Luther King, Jr.¹

On September 20, 1958, in a Harlem department store, a mentally ill black woman stabbed Martin Luther King, Jr. (1929–1968), in the chest with a letter opener. The tip of the knife only a fraction of an inch away from his aorta, he narrowly missed death. The momentous events in the civil rights movement in the decade that followed, including his assassination in Memphis in 1968, eclipsed the memory of the earlier attempt on his life. But King recalled the stabbing in one of his most famous speeches, his “Mountaintop” oration in which he prophesied his death which came only hours later.

The story illustrates why physicians must exert extra care when they care for very important people (VIPs).

Doctors treat a VIP differently out of deference to their wealth and celebrity, and often to the patient’s detriment. In King’s case, in spite of the urgency to deal with his injury, the staff at Harlem Hospital delayed surgery to wait for Director of Surgery Aubré de Lambert Maynard (1901–1999) to show up. Such alterations to the standards of care may be yet another hazard of fame.

Maynard claimed to have performed King’s surgery, relating all the details of the operation and never failing to emphasize the harrowing location of the tip of the blade. But while the description of the position of the knife was true, Maynard’s account was a fabrication. It is generously seen today as an odd delusion of a self-important surgeon desperate to be seen as being a key player in a historic moment.

King’s visit

King had come to Harlem to promote his first book, Stride Toward Freedom: The Montgomery Story,¹² his account of the year-long boycott that began with Rosa
Park’s arrest on December 1, 1955, and ended with the Supreme Court decision that desegregated the Alabama city’s bus system on December 17, 1956. With youth, charisma, and heroism, King, not yet thirty, had emerged from the episode as the civil rights movement’s most visible figure.

King’s trip to New York City began with a television appearance on the Today show, followed by an outdoor rally in front of Hotel Theresa in Harlem. It was a state election year and politicians maneuvered to share the dais with King, including rivals for the New York governorship W. Averill Harriman and Nelson Rockefeller. Thousands filled the street in front of the hotel.1

In the crowd was Izola Curry, a forty-two-year-old loner, African American who favored rhinestone-rimmed glasses, dangly earrings, and flashy garb. Neighbors knew her from her very public rants against street preachers. The FBI received letters from her demanding to know why communist agents were out to get her. Widespread suspicion that communists were behind the growing civil rights movement helped fuel the increasing political backlash against King, obscuring the racism fueling the opposition. King, both a preacher and civil rights activist, was doubly suspect in Curry’s disjointed reasoning. She wandered in the crowd, haranguing against communists, Caucasians, and especially huckster preachers like King.1,3

Manhattan borough president Hulan Jack heard the taunts and heckling from the platform. He expressed his apprehension to King as they stepped down. King replied, “Oh God, don’t get a bodyguard!” And to William Rowe, Jack’s assistant, “And don’t you try to act like one, either.”1

The stabbing

The next afternoon, Blumstein’s department store on West 125th Street held a book signing in its shoe department. King signed books and chatted with admirers. At 3:30 PM Curry made her way through the crowd to face King. She clutched a curved eight-inch Japanese penknife with an ivory handle, and carried a .32 caliber automatic pistol in her purse.

“I am Martin Luther King?” she asked as she walked straight up to King, hands concealed in her raincoat. “Yes, it is,” replied King, certain this was just one more of the many fans he had been greeting for four days. Suddenly Curry brought her hand out of her raincoat in an arc. Instinctively, King yanked his left arm up to block the letter opener, cutting his left hand as Curry plunged the blade into his chest. Quickly a bystander knocked Curry’s hand away from the blade before she could pull it out and stab King again. “I’ve been after him for six years!” shouted Curry. “I’m glad I done it!” Curry started to run. A group of women who had been flanking King began chasing her, brandishing umbrellas and shouting, “Catch her! Don’t let her go!” Before they could reach her, the store’s floor manager blocked their path. Walter Pettiford, an advertising executive for the New York Amsterdam News, the city’s principal Negro-owned newspaper, grabbed Curry’s left arm and swung her around so that he could grab her other arm. Then he proceeded to lead her toward the front of the store hoping to locate a store detective. As he held her, Curry kept repeating, “Dr. King has ruined my life! He is no good! The NAACP is no good, it’s communistic. I’ve been after him for six years. I finally was able to get him now!” Shortly afterward, I. B. Blumstein himself showed up with a security guard, who handcuffed her.1

King remained alert throughout the episode, the penknife in his chest. He tried to calm those around him. “That’s all right!” he said. “That’s all right. Everything is going to be all right!” Arthur Spingarn, national president of the NAACP, held King’s hand and tried to comfort him as they awaited an ambulance. Bystanders debated whether to remove the knife. One, cooler and more knowledgeable, insisted that no one touch it.

At 3:38 PM, a phone at Mrs. Constance Jenning’s desk at Harlem Hospital rang. A man had been stabbed in the chest at Blumstein’s and needed an ambulance right away. Minutes later Ronald Adams, a driver, and Mrs. Russie Lee, a licensed practical nurse, sped down Seventh Avenue toward the store. On their arrival, Lee saw King still seated and alert. She calmly repeated the instructions not to touch the knife. King was lifted in the chair to the back entrance of the store while Adams brought the ambulance. Lee remained at his side during the return trip to the hospital.1

The hospital and surgeons

Harlem Hospital was a 900-bed facility typical of a public hospital of the time. Patients unable to afford a private physician filled the facility. Interns and residents, nominally under the supervision of an attending physician, provided most of the care, but senior staff had private practices at separate offices and other hospitals. Trainees therefore routinely had free rein to manage patients on their own, and, as a result, gained an outstanding clinical
education, with a large volume of patients with a wide range of illnesses. The drawbacks of inadequate resources and lack of supervision, however, were undeniable. Informed patients and their doctors stayed clear of public hospitals like Harlem Hospital when they, or anyone they knew, needed medical attention.¹

Among the public hospitals in New York there was also a pecking order. Three medical schools sent their trainees to Bellevue Hospital, the largest in New York. Harlem Hospital, recently integrated, had no such affiliation. It was one of only four training programs in the country at which African-Americans could receive training beyond their internship year. Harlem Hospital, with its biracial attending and resident staffs, was considered to be several steps below Bellevue, so that taking King there led quickly to gossip and second-guessing among the public, and in the medical community.¹

Trauma, however, was one field in which public hospitals and their surgeons were superior. The locations of public hospitals in inner cities guaranteed a steady stream of gunshot and stabbing victims. Resident trainees at public hospitals became accustomed to life-saving procedures and surgical interventions. Harlem Hospital surgeons wrote authoritative articles on the management of trauma.

One such publication was on stab wounds to the heart.⁴ Harlem Hospital surgeons documented fifty-seven percent survival among patients for whom they closed lacerations in the wall of the heart, a bold departure from pericardiocentesis, the then prevailing approach to such injuries. Harlem surgeons defended the procedure in spirited debates at professional meetings, and, in time, were vindicated when their approach became accepted practice. Thus, despite public and surgical prejudice, Harlem Hospital surgeons were among the best for the injury that threatened King’s life.

The first to respond to King was first-year resident Charles Felton. He saw the knife and left it untouched. He coolly examined his patient’s heart and lungs, and conducted an electrocardiogram. Finding King stable he reassured him that, for the moment, all was fine. Then a wave of surgeons and nurses pushed him aside.¹

Among these were two superb thoracic surgeons. Emil Naclerio (1915–1985), son of Italian immigrants, had

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¹ This was the context in which Dr. Emil A. Naclerio treated Reverend Martin Luther King Jr. He was the first to respond to King after the shooting. Dr. John Cordice was also present, as mentioned in the text.

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Left, Dr. Emil A. Naclerio at the bedside of Reverent Martin Luther King, Jr. (© Bettmann/CORBIS)
Right, Dr. John Cordice. (Photo Johnny Nunez. Bettmann/CORBIS)
trained at the Marquette Medical School in Milwaukee and the Overholt Clinic in Boston.1 African-American surgeon John Cordice (1919–2013) (AΩA, New York University, 1997, Alumnus) was junior to Naclerio but no less well trained. The son of a Durham, North Carolina, physician, he had attended the New York University School of Medicine, completed his residency in surgery at Harlem Hospital, and had advanced training in thoracic surgery in Manhattan, Brooklyn, and France.1 Naclerio had written an extensive review on the management of stab wounds of the heart,2 and co-authored another with Cordice on those involving the lung.6

The emergency department was a pandemonium of photographers’ flashbulbs and crowds of doctors, nurses, and the curious. Governor Harriman, campaigning in the city, heard the news and went straight to the hospital. He resolved that King would not die on his watch. Surgeons from other New York hospitals arrived and milled outside the emergency suite, volunteering their opinions and services. More than forty individuals offered to donate blood. People packed the sidewalks and streets outside the hospital.

Both Naclerio and Cordice raced to the hospital as soon as they heard the news, Naclerio from a wedding at the Waldorf-Astoria Hotel, Cordice from collecting mail with his daughter from his new office across the Hudson to the Waldorf-Astoria Hotel, Cordice from collecting mail at Harlem Hospital, and had advanced training in thoracic surgery in Manhattan, Brooklyn, and France.1 Naclerio had written an extensive review on the management of stab wounds of the heart,2 and co-authored another with Cordice on those involving the lung.6

The operation

It took more than an hour from King’s arrival to Maynard’s appearance, but King remained awake, his vital signs stable. Once Little Napoleon was on the scene, Cordice and Naclerio felt they could proceed. They scrubbed as Chief Resident Leo Maitland placed a cutdown intravenous cannula into King’s arm. King then received anesthesia as the surgeons entered his chest between the right third and fourth interspace, ligating the internal mammary artery in the process. They observed that Curry had plunged the knife with such force that it had penetrated the thick manubrium. The knife’s tip stopped just short of the junction of the aorta and the innominate artery.1

While they worked, Maynard held court outside the operating theater. “Gentlemen, this is a Harlem Hospital case,” he said, “and we are accustomed to trauma of this sort.”7 Then with confidence that would amaze surgeons today, he invited some of his colleagues into the surgical suite to observe.

Naclerio and Cordice, satisfied that King was in no
danger, waited for Maynard to scrub in. The operation mostly completed, they offered Maynard the honor of pulling the knife free. The bone, however, held the blade fast.

By now Maynard had scrubbed and entered the surgical field. Naclerio and Cordice demonstrated to him what they had before them. With his gloved hand, Maynard grabbed the protruding unsterile gauze-covered blade of the letter opener, attempting to extricate it from King’s chest. But the gauze slipped off and the blade knicked Maynard’s glove. It was torn. So Maynard had to leave the surgical field to change gloves…Maynard returned wearing new gloves. At that point, Cordice took …a Kocher clamp…and placed it on the unsterile protruding section of the blade of the letter opener, which had been covered once more with gauze. Then he handed it to Maynard, telling him, “Look, if you’re going to pull on it, pull on it with this.”

Maynard appeared a bit flustered. He took the Kocher clamp off. Calmly, Cordice took a second clamp and placed it around the blade and invited Maynard to pull the blade out of King’s chest…Maynard removed the clamp again. Cordice placed a third Kocher clamp around the blade…After placing this third clamp around the blade, both Naclerio and Corice said, “Go on, take it out.” Maynard began tugging on the blade. Finally, with a fair amount of effort it came out.1

Maynard then scrubbed out and left the others to close King’s chest. The closure was simple, without a tube or drains.1

In his memoirs, however, Maynard had a different recollection of the operation:

Analyzing the situation while scrubbing up, I realized why no one had proceeded with surgery, which ordinarily would have been done. Preliminary measures had contributed to the stabilization of the patient’s condition, so precipitate action had been withheld. In the face of the unprecedented public reaction to the assassination attempt, which brought to the hospital government officials and dignitaries from every level, as well as a concentration of the communication media,
The Harlem assassination attempt on Martin Luther King, Jr.

it was understandable that no one was eager to seize the responsibility, which could be better borne by the Surgical Director. There was also the strong deterrent of fear, fear that if anything went wrong or tragedy supervened in the course of surgery—and it could—they would be identified with the failure and, justly or unjustly, blamed. On the other hand, if everything went well with the Surgical Director at the table, those involved would at least have the credit of participating in a lifesaving effort of historic import on a famous man.7p187

In newspaper reports and his memoirs, Maynard contended that he had entered the chest by removing the second rib; removal of the blade required that it be pushed from below; that it had lacerated a number of blood vessels that had created “considerable difficulty,”1p110 and that removal of the blade required rongeuring part of his manubrium.7 None were true. With satisfaction, he noted that his use of Penrose drains to handle possible infection in the area had impressed the chief of thoracic surgery at Columbia.7 But no drains had been placed.1

Both Naclerio and Cordice kept silent in the decades after the stabbing; Naclerio never spoke of it. When, in 1996, Maynard gave another misleading interview in the New York Times,9 Cordice tried to set the record straight in a letter to the editor that was never published. His version of the operation was finally published in Hugh Pearson’s book. Other eyewitnesses present in Harlem Hospital that day confirmed that Naclerio and Cordice were the surgeons who performed King’s operation.1

The tendency to treat the famous, wealthy, and influential with obsequiousness extends to medical care. Neil Baum notes that there is an “ego boost” that comes when such people need attention (Baum is Doctor Whiz for Health & Fitness Magazine). He warns that the patient’s notoriety and the doctor’s submissiveness may interfere with objective assessment and good medical decision-making.9

Jorge Guzman and colleagues at the Cleveland Clinic define the “VIP syndrome” as a situation in which “a patient’s special social or political status…induces changes in behaviors and clinical practice that can…lead to poor outcomes.”10 They offer a set of guidelines to help ensure that providers treat VIPs the same as their other patients. In King’s case, two of the rules were broken: Don’t bend the rules, and resist “chairperson’s syndrome.”10 Naclerio and Cordice violated both when they decided to wait for Maynard’s arrival, delaying care when immediate surgery was required. King’s operation is another example of what every chief resident knows: The chair of surgery is too often the least capable surgeon in the hospital. One rule, however, was observed: Care should occur where it is most appropriate.10 King was taken to Harlem Hospital, where he came under the care of two of the most experienced surgeons in the country for his injury.

The speech

King identified Maynard as his surgeon, and many of his statements reflected Little Napoleon’s embellishments. Not exaggerated, however, was the fraction of an inch from knife’s tip to disaster, a fact that impressed King to his last day.1p125 On April 3, 1968, the night before his assassination, he addressed a crowd in the Mason Temple in Memphis. As he neared the close
of his speech, he recounted the Harlem stabbing. The knife was so close to his aorta, he noted, “that if I had merely sneezed, I would have died,” an observation certainly heard from Maynard. King recalled a letter from a ninth-grade white girl: “I’m simply writing to say that I’m so happy you didn’t sneeze,” she wrote.11

Then he used his brush with death and preacher’s cadence to build an emotional account of the movement’s milestones since the stabbing.

And I want to say tonight—I want to say tonight that I too am happy that I didn’t sneeze. Because if I had sneezed, I wouldn’t have been around here in 1960, when students all over the South started sitting-in at lunch counters...

If I had sneezed, I wouldn’t have been around here in 1961, when we decided to take a ride for freedom and ended segregation in inter-state travel.

If I had sneezed—If I had sneezed I wouldn’t have been here in 1963, when the black people of Birmingham, Alabama, aroused the conscience of this nation, and brought into being the Civil Rights Bill.

If I had sneezed, I wouldn’t have had a chance later that year, in August, to try to tell America about a dream that I had had.

. . . If I had sneezed, I wouldn’t have been in Memphis to see a community rally around those brothers and sisters who are suffering.

I’m so happy that I didn’t sneeze.11

His oratory soared. A tumult of voices and shouts began to build in response. Men and women stood weeping, unable to control their emotions. It seemed that he somehow knew that he would not be so fortunate next time. Tears in his eyes, King gave his own farewell. The oration became known as his “Mountaintop” speech, second only to the legendary “I Have a Dream” speech of 1963.

We’ve got some difficult days ahead. But it really doesn’t matter with me now, because I’ve been to the mountaintop. And I don’t mind.

Like anybody, I would like to live a long life. Longevity has its place. But I’m not concerned about that now. I just want to do God’s will. And He’s allowed me to go up to the mountain. And I’ve looked over. And I’ve seen the Promised Land. I may not get there with you. But I want you to know tonight, that we, as a people, will get to the Promised Land!

And so I’m happy, tonight.

I’m not worried about anything.

I’m not fearing any man!

Mine eyes have seen the glory of the coming of the Lord!11

Notes

Hugh Pearson (1957–2005) is the major chronicler of the events in the review above, including a detailed background of the civil rights movement at the time in his book, When Harlem Nearly Killed King. Cordice began to receive the recognition he deserved for his role in King’s surgery in the years before his death on December 29, 2013.

References


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The uses of medical oaths in the twenty-first century

Ralph S. Crawshaw, MD; Byron A. Foster, MD, MPH; Matthew Iles-Shih, MD, MPH; and John Stull, MD, MPH

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Following up on a 1959 survey by Donald Irish and Daniel McMurry,1 in 1969, Dr. Ralph Crawshaw began to survey medical school deans on their use of oaths among medical students in the United States and Canada. He conducted his survey every decade. His last published report was based on survey data collected in 1999, and was published in The Pharos in 2003.2

Crawshaw’s surveys served three primary purposes:
1. To document the use of oaths and their administration in undergraduate medical education.
2. To evaluate how nascent medical practitioners were being introduced to the ethics of the medical culture.
3. To use the practice of oath-taking as a platform for engaging in conversation about what the barometer is, and should be, for ethical discussion in medicine.

There has been much academic debate and critique on the structure and function of oaths and oath-taking in the current cultural and ethical milieu of twenty-first century medicine.3 The discussion has centered on the extent to which traditional medical oaths adequately address:
- The diverse ethical challenges that modern physicians face.
- The inherent competing interests that physicians may perceive, deriving from their own religious beliefs and the ethical codes of various professional associations.
- The evolving nature of the patient-physician relationship.
- The tension between the public health principles of equity and justice (common good), and the focus of traditional medical oaths on an allegiance to the good of the individual patient.

One of the goals of the current study was to elucidate what leaders in medical education are thinking in continuing to administer medical oaths in the twenty-first century. Another goal was to continue the dialogue on the roles of medical oaths, how they influence both individual and collective commitments to core ethical principles, and how
that influences professional development and behavior.

A newer trend, statements of principles, may be emerging as a replacement ethical code in medical schools where students find the traditional oaths insufficient to inform their own practice or frame discussion on the ethics of medicine with the public or their colleagues. The 2009 Crawshaw survey therefore was modified from prior versions to include a question on the use of statements of principles.

Methods

The 2009 survey was based on prior surveys conducted by Dr. Crawshaw over the past fifty years. Original questions included in the 2009 survey were: whether the medical school administers an oath; what form of oath is used; when is the oath administered; recent changes to the oath's form or use; and an open-ended question on the rationale for use or non-use of an oath.

Two additional questions were added to the 2009 survey on the use of statements of principles: whether the school is using a statement of principles; and who took the lead in developing the statement.

The survey was sent by mail in January/February 2009 to the deans of 147 medical schools in the United States and Canada. A letter outlining the history of the project and a copy of the results from the 1999 survey were included as background. Non-respondents were sent one follow-up reminder and survey packet. The survey was
considered closed in August 2009, and all responses tabulated at that time. Descriptive statistics were completed on the resulting data in R (a statistical computing software program) and Microsoft Excel.

**Results**

Of the 147 surveys sent out, 135 (92%) schools returned complete surveys. Although this is a very good response rate, the response proportions have gradually decreased over the past fifty years (Table 1).

All of the 135 responding schools reported using an oath in 2009.

The practice of oath-taking has steadily increased over the past fifty years, from 72% in 1969, to 100% in both 1999 and 2009 (Table 1).

The occasion on which an oath is administered was reported in 129 of the 135 responses, and varied widely. Forty-eight (37%) of schools reported administering an oath only at graduation. The most common occasion other than graduation was during a white coat ceremony.

The form of the oaths used was reported by 98 schools. The modified version of the Hippocratic Oath continues to be the most used at 33.3%; 15.6% use the Oath of Geneva; and 11.1% use an unmodified translation of the traditional Hippocratic Oath (Table 2).

<table>
<thead>
<tr>
<th>Table 1. Reported Use of Oaths over Fifty Years in U.S. and Canadian Medical Schools</th>
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<tbody>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Responding schools that use an oath % (n)</td>
</tr>
<tr>
<td>No response % (n)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Types of Oaths Administered at U.S. and Canadian Medical Schools since 1959 (percent)</th>
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<tbody>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Hippocratic</td>
</tr>
<tr>
<td>Modified</td>
</tr>
<tr>
<td>Geneva</td>
</tr>
<tr>
<td>Covenant</td>
</tr>
<tr>
<td>Maimonides</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
</tbody>
</table>

Note: The denominator for the proportions tabulated in the 2009 column is the total of the 135 responses (including the 27% non-responses on type of oath (classified as “unknown”). It is unclear how “unknown” was decided in prior surveys. The traditional Hippocratic Oath in its unmodified version is labeled “Hippocratic;” the modernized version of the Hippocratic Oath as written by Louis Lasagna is labeled “Modified;” the Declaration of Geneva is labeled “Geneva;” a covenant of any form is labeled “Covenant;” and the Prayer of Maimonides is labeled “Maimonides.”

The 1994 data was not the focus of a stand-alone article, but was collected by Dr. Crawshaw and cited in a 1996 article.4

<table>
<thead>
<tr>
<th>Table 3: Reported Use and Origins of Statements of Purpose in U.S. and Canadian Medical Schools</th>
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<tbody>
<tr>
<td>Uses of Statement of Purpose</td>
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<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>%n</td>
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<tr>
<td>Authors of Statement of Purpose</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<tr>
<td>% of “yes” (n)</td>
</tr>
</tbody>
</table>

* Responses included combinations of student and faculty, administrators, administrators and students, and administrators and faculty.
Of the 135 responding surveys, 15.6% (21) reported that they had considered changing the form of oath used. Changes considered focused on the wording of the oath to remove references to a deity, modernizing the oath, and including more student involvement in the type of oath to be used.

Most schools—87.2%—reported having some version of a statement of principles in place. The statement of principles was co-developed by students and faculty in 46.1% of responding schools, by students alone in 26.5%, and faculty alone in 27.5% (Table 3).

Twenty-seven percent of schools responded to the question asking for an explanation of the reasoning behind their school’s use of a medical oath. These responses revealed several common themes: tradition; professionalism; and commitment or re-commitment to patients (Table 4).

<table>
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<tr>
<th>Table 4: Illustrative Quotes from Qualitative Analysis</th>
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</thead>
<tbody>
<tr>
<td><strong>Tradition</strong></td>
</tr>
<tr>
<td>It is a tradition here that the student graduating class can write the oath each year.</td>
</tr>
<tr>
<td>The oath is an important part of our ongoing tradition.</td>
</tr>
<tr>
<td>To follow tradition.</td>
</tr>
</tbody>
</table>

**Discussion**

This survey provides the opportunity to observe the patterns of current and past oath-taking behaviors, and to use the results as a stimulus for future discussion on the role oath-taking and related behaviors have in medical education and practice.

The near-universal practice of oath-taking has been maintained over the forty years leading up to, and including, the 2009 survey. That fact, and the consistent administration of oaths in transition ceremonies at the start of medical school and at graduation, suggests the importance of oath-taking as a ritual of initiation into the medical profession. This is reinforced by the qualitative reports from medical school deans that tradition, professionalism, commitment to principles, and patient care are major motivational considerations for including oaths in medical school ceremonies.

In addition to serving as a mechanism for induction into a professional community and a mark of membership, additional plausible functions of oath-taking in medical education include:

- A symbol and public declaration of a social contract between the profession and its individual members, and society as a whole.
- Cultural markers delineating the boundaries between medicine and its collegial trades and professions.
- A symbol of the profession’s struggle to maintain its autonomy.
- A way to highlight the profession’s values.
- A means to increase collective and individual accountability.
- A foundation for ethical practice within the profession.

Oaths and the practices through which they are produced, debated, and performed are important cultural artifacts that evolve in response to changes within medicine’s deeper systems of meaning and practice.

The observation that the modified Hippocratic Oath (33.3%), and the unmodified Hippocratic Oath (11.1%) continue to be used in a large proportion of schools further supports the function of oath-taking as an expression of tradition. This is particularly interesting given that the Hippocratic Oath contains language with which modern medical students may feel uncomfortable.

The free-text comments expressing the schools’ reasons for administering an oath did not include specific discussions of ethical principles or the role of a physician in society. This is consistent with a 2009 survey of U.S. physicians that found that while 97% of respondents had taken an oath during medical school, only 26% indicated that the oath influenced their practice “a lot,” and another 37% responded “somewhat.” These findings suggest that
oaths and oath-taking are less important than might be assumed.

However, of the 11.1% of schools reporting that they used a non-traditional oath (reported as “Other”), almost half used an oath developed either by the institution or by students. The majority of schools with a Statement of Principles in place reported that these statements were developed by students and/or faculty, indicating a high level of engagement by these new professionals in articulating the ethical ideals and standards to which they should be held.

It is important to consider the patterns of oath-taking over the past five decades and what they indicate about the evolving concerns of contemporary physicians in training, as well as their teachers. The free text comments collected in the survey suggest that students place considerable importance on professional ethics. However, the comments also suggest a growing sense that traditional medical oaths and associated oath-taking rituals are insufficient guides to navigate the complexities of medical education and practice.

Robert Veatch has argued that the plurality of oaths, inter-oath incongruities, and lack of epistemological priority undermine the status of any oath as a code of ethics.\(^3\) To this we would add that poor coherence as ethical frameworks—both across oaths and between oaths and a variety of professional ethical codes—plays an important role in undermining the authority of oaths and oath-taking for a new generation of medical practitioners who are described as “conventional,” “rule-conscious,” exhibiting greater “openness to change,” and having a tendency to resist appeals to tradition when this comes into conflict with their other values.\(^3\)–\(^7\)

This desire for coherence, comprehensiveness, and universality highlights an interesting paradox. The limited scope and lack of overarching philosophical coherence of traditional oaths may grant an ability to reach across different historical moments and ideologies, while at the same time, this conservative minimalism is also the source of an inability to speak in as meaningful a way to many students’ and physicians’ most central concerns and passions.

Students have also criticized traditional oaths and oath taking for their insufficiency in substantively promoting the formation and consolidation of a coherent professional identity, both on collective and individual levels. Introductions to the history and content of oaths in the medical humanities curriculum often emphasize oaths’ antiquity and specificity, and can exacerbate students’ lack of emotional connection to them, further highlighting, rather than addressing, their concerns about content and contemporary relevance. For students, processes of collective, team-based exploration, engagement, and individualized expression are valued and ingrained in practice.\(^6\)–\(^8\) This is supported by the fact that students had a role in developing nearly three-quarters of the statements of principles, as reported in the survey.

A careful consideration of oaths and statements of principles prompts reflection on a possible gap between the codifications of professional ideals and the rituals assigned to them, and their application in practice. This gap is potentially dangerous—both for students and the profession—because it risks leaving us rudderless in our attempts to think through and address medicine’s larger ethical problems. This, in turn, leaves the more conscientious among us to seek out and develop primary identification with ethical, moral, and social traditions and frameworks external to medicine. While this result is not in itself problematic, it risks a gradual loss of identification with the profession of medicine, as well as a potential abdication of our collective responsibility to address many...
of the most pressing ethical challenges of our time.

The fundamental problem is not that medicine lacks a singular, explicit, coherent moral philosophy. Rather, it is the perception that as a profession we have failed to create, and diligently maintain, a culture that allows for, and encourages, the critical thinking, debate, and continuous sharing of ideas for engagement that result in an ethical practice—a genuine sense of participation in a moral community, and individual fulfillment.

A structured space in which wide-ranging and sustained discussion can take place is needed. We must develop and ensure a place in which students, faculty, and established practitioners can explore and adapt the conceptual frameworks and ethical perspectives that will enable the effective assessment and engagement in the practice of medicine.

Conclusion

So what role might oaths have in addressing this need? As suggested above, attempting to comprehensively broaden the scope of medical oaths, or to transform them into more systematic ethical frameworks would render them more contentious, limit their universality, and make them unwieldy as a public document and ritual object.

A more practical and useful objective would be to look for ways to leverage the cultural significance of oath-taking as the first step toward establishing forms of practice and cultural dispositions that promote curiosity about, and continued collective engagement with, what it means to be a physician. Linking the oath and its content to the continued development of the student-driven statements of principles may be a starting point. Across the medical experience, this kind of linkage could serve as a way for students, individually and collectively, to revisit the oath, and its substantive application to their evolving professional identification.

Dr. Ralph Crawshaw’s interest in oaths over the past fifty years came from a deep desire to understand the role of medical training in creating a culture in medicine of the highest ethical standards while also maintaining a critical eye on how those ethics—and the oaths that embodied them—inform practice. He thought of his once-per-decade survey of medical oath-taking behaviors akin to tracking one of medicine’s “cultural vital signs.”

The modification of the current survey to include statements of principles reflects his continued curiosity and drive to find new ways of checking the ethical pulse of the medical community.

In memoriam, we close this paper with some of his contributions to earlier versions of this manuscript:

A metaphor for oaths: a compass to sail by which has lost its magnetism.

The professed high moral position of the medical oath in ongoing medical practice fails to address the physician’s need to engage with enduring cultural, economic and moral issues present in every clinical practice of medicine.

Succinctly, to live the full life granted to a physician, each graduate should construct her/his own oath as a supplement to the Hippocratic Oath. Thus, each graduate shall have her/ his proper guide to a fulsome life of service and honor.

References


Acknowledgment

The article was written with Dr. Crawshaw’s input and data, but was published posthumously.

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In an instant

Maya Armstrong
The author is a member of the Class of 2018 at The Ohio State University College of Medicine. This essay won third place in the 2015 Helen H. Glaser Student Essay Competition.

You were with her today at the oncologist’s office. She already had a lump removed and found out that she’s positive for BRCA2. In an instant, her life was changed, and soon she had a full hysterectomy. Her uterus is gone. Her ovaries are gone. The surgery was done using a robot. The incisions were minor. Those wounds will heal. Harder to say about the rest of her, which is why I’m glad that you were there.

For most of the visit, you didn’t seem engaged. I couldn’t tell whether you were bored or stunned or just had your mind on other things. You probably wished that you were anywhere else in the world but there. I can’t say that I blame you. But then there was the moment when you joked (sort of) about her mood swings. She had brought them up—playfully enough to partially mask her anxiety—and you gave her a look that said, “Don’t blame your mood swings on the cancer.” But somehow in that look, there was also a tenderness...an understanding that nobody’s perfect, and we’re all just doing the best that we can.

But the part that really got me (the part that almost made me cry) came a little later. She was talking about her younger, wilder years. You smiled at that. Maybe you knew her then. Maybe you didn’t, but I could tell that you could picture it—and you approved. But that wasn’t it either.

She might be getting a double mastectomy. She won’t find out for another month or so when she goes to see the surgeon. Another surgery. Another defining part of her female anatomy potentially being sliced away. And she was talking about the reconstruction as if it were already a done deal—and that she wanted to show her scars proudly—maybe not as proudly as she had once flashed her bodacious ta-tas, but she could still be sexy after all...Right?

That was when you did it. The look was so spontaneous, so tender and sincere. In an instant, it gave you away—told the secret of your love for her feisty spirit and of your fear that that very feistiness might be extinguished before your eyes.

I don’t know if she saw the look, but I hope she did. And I hope that you are able to tell her...even when she’s being emotional or bossy or stressed out beyond belief...that you love her fire—and that you’ll tend it for her...keep the embers glowing even on days when she can’t remember what it was like to be so carefree and full of life. I hope it doesn’t come to that. I hope that the two of you spend the rest of your days laughing in cancer’s face and celebrating your victory. But most likely there will be days (there usually are) when fear and uncertainty will get the best of her —and it may come out in some pretty ugly ways. When that happens, just take her in your arms and look into her eyes and tell her that she’s got really gorgeous tits...but that they do not compare to the beauty that she has added to your life.

About Maya Armstrong
My circuitous route to medical school took me through graduate studies in the tropics; a cancer research laboratory in Boston; teaching in impoverished colonias in Mexico; and experiments in creativity in the Nevada desert. I’ve been a volunteer coordinator, a writer/editor, and even a massage therapist—all of which have, in their many strange and wonderful ways, led me to medical school at The Ohio State University, where I am in my second year.
The author is a member of the Class of 2016 at Texas Tech University Health Sciences Center Paul L. Foster School of Medicine. This essay won honorable mention in the 2015 Helen H. Glaser Student Essay Competition.

I don’t think I can make it down to the car.”

There it was: the phrase every expectant father dreads hearing from his wife as they prepare to leave for the hospital. In the blink of an eye the staircase from our second story apartment became as daunting as the Himalayas.

“Honey, are you sure??” I pleaded, “I can carry you down the stairs if we need to!” The panic in my brain was spilling uncontrollably out of my mouth. “And then,” I continued, “I’ll run every red light and break every speeding law and get us to the hospital in ten minutes!” (The adrenaline coursing through my body was assuring me that shaving fifteen minutes off my twenty-five-minute commute to the hospital was not only plausible, it was actually a stroke of brilliance.)

“No, I can’t move.” She looked up at me, her eyes the size of saucers.

“Oh, man. . . .”

Before I proceed, I should pause to explain the context of our predicament. My wife Rachel and I were expecting our second child—another little girl—and the due date was right in the middle of my combined OB/GYN and Pediatrics clerkship. My clerkship directors gave special permission for Rachel to serve as my “continuity patient,” rather than randomly selecting a patient from the clinic for me. This was fantastic news, since it meant that not only would I be able to attend her pre-natal appointments, but
I would actually be required to. (Not a great substitute for date night, but beggars can’t be choosers.)

Before the birth of our first daughter, Rachel had informed me that she was not keen on the idea of having a needle stuck into her spine and expressed a desire to “go natural.” So I agreed to attend a weekly birthing class with her that would help prepare her physically and mentally for a natural birth. As it turned out, she had a very smooth first delivery and decided to pursue another natural birth this time around. She was referred by a friend to a highly-regarded local midwife—a match made in heaven. Unfortunately, just two weeks before the due date, our midwife informed us that she was retiring and would not be there for the birth. Ouch.

As luck would have it, I was currently stationed on the Labor and Delivery (L&D) floor at the same hospital where we planned to have our baby. I quickly recruited a team of nurses, residents, and attending physicians who assured me that they would help my wife have the labor she desired if they were on duty when we came in. Even so, the thought of transferring care at this point in the pregnancy was a source of great anxiety for her.

After about a week’s worth of conversations between us and after feeling reassured through much prayer, Rachel informed me that she finally felt completely at peace that everything would turn out just fine. And so the days passed, and the due date came and went. My last day on OB/GYN was on a Friday and—with no signs of our baby—I asked my little team to be on the lookout for us.

That Sunday morning Rachel woke up at 2:00 AM with painful contractions. I was in my standard sleep deprivation-induced coma, so she (who, as I had previously established, has a much higher pain tolerance than I do) decided that she would just track the contractions by herself and wake me up when she thought it was about time for us to leave for the hospital. After all, she had done this before, our bags were packed, and everything was in place. What could possibly go wrong?

The first hour, contractions were seven minutes apart. Close enough to justify going to the hospital, but she decided that she’d much rather labor in the comfort of our home than at the hospital. The next hour they were six minutes apart. The third hour, the contractions were still six minutes apart, but with a few intervals of only two to three minutes apart. Then her body started to shake. She woke me up, and after explaining the intervals and the shaking to me we decided that the time had come for us to grab our bags and go. My wife’s parents live about three miles down the road from us, so we called them to come watch our two year old while we went to the hospital. “We’ll be there soon!” they told us excitedly.

In the meantime, Rachel went to use the restroom before leaving the house. Almost immediately, any semblance of still being in early labor disappeared. Still seated, her whole body began to shake much more strongly than before. I had just changed into my hospital scrubs when she called out to me to come hold her, a sound of worried urgency in her voice. I bounded over to her and she leaned her weight into me as I held her until the violent contraction subsided.

Sensing that we were on a deadline, I frantically returned to grabbing a few last-minute items to throw in the bags. I hadn’t gone far when she called me back to her—she hadn’t moved and was already having another contraction. And that’s when the blood came.

“I don’t think I can make it down to the car.”

“Honey, are you sure? I can carry you down the stairs
if we need to! I’ll run every red light and break every speeding law and get us to the hospital in ten minutes!”

“No, I can’t move.”

“Oh, man…”

My heart fell into my stomach. Though I had already delivered what felt like a million placentas, I had only caught two babies in my time on L&D, and both times my instructor’s hands were around mine, walking me through the maneuvers to help guide a baby out. My mind began to race. What are we going to do? Who is going to help us?? At that moment I realized that there would be no one there to help us. It was just Rachel and me.

There is a common phrase that in these types of situations your life will flash before your eyes. While it wasn’t my entire life that flashed before me, time did stand still momentarily and I was taken back to the conversation with Rachel in which she described the peaceful reassurance she had felt in her prayers that everything would turn out all right for us. A feeling of calm, determined confidence flooded through me. I trusted then that God would take care of our little family.

Eyes set and shoulders back, I transformed into the chief of trauma surgery. Two pumps of lavender-scented bathroom hand soap and I was scrubbing in. Clean hands? Check. Clean towels? Check. It was game time, and my adrenaline flowed as an imaginary stadium of fans inside my mind cheered me on. When I turned to help Rachel stand up from the toilet where she had been sitting frozen and trembling, I found that she was already standing. Exerting all of her strength, she made it to the towels I had placed on the floor. Then the next curve ball came. She instinctively fell down onto the towels in the only comfortable position: kneeling on all fours.

My jaw dropped (a collective gasp sounding from my instructor’s hands were around mine, walking me through the maneuvers to help guide a baby out. My mind began to race. What are we going to do? Who is going to help us?? At that moment I realized that there would be no one there to help us. It was just Rachel and me.

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My jaw dropped (a collective gasp sounding from my little mind-stadium of fans) and my confidence wavered. Speaking as the baby’s father, rather than the baby’s doctor, I explained to her that I had never even seen a baby delivered from all fours, and I pleaded with her to try to turn over onto her back.

“I can’t move!” she managed to gasp out between contractions. That settled the matter. Hands and knees it was.

After only a few minutes of her heroic pushing and my careful maneuvering, our baby girl fell gently into the towel in my arms. The interesting thing about a baby being delivered from all fours is that her face was looking up at me the whole time, and it was a very surreal moment to stop and realize that mine was the face to welcome her into this world. As I had learned to do during my clerkship, I began the vigorous drying of her little body, hoping that it would provoke her to cry and open up her lungs. A huge wave of relief washed over me when that strong little cry rang out in our apartment, a new life greeting the world on a Sunday morning just before dawn. Almost immediately my adrenaline evaporated. A sensation of warm pressure erupted over my entire body and was replaced by a fine layer of cool sweat. Finally, after nine months of waiting—one intense roller coaster of a morning—we had done it! (And the fans went wild!!)

The following minutes and hours went by in a blur. Just minutes after the birth, my in-laws arrived to find my beautiful wife reclined against the cupboards of our external bathroom vanity with a baby already on her chest. In the fifteen minutes since we had called them, we had already had our baby. Next to arrive was the EMT crew who we had called right after the delivery to ask how we should proceed. At the recommendation of the 911 dispatcher, I had used a shoelace to tie off the umbilical cord. The paramedics cut the umbilical cord and then carried Rachel down the stairs to the ambulance in a bed sheet that served as a makeshift hammock. I rode in the back of the ambulance with Rachel, and we smiled at each other the whole way as we gazed at the beautiful little angel that had just joined our family.

What’s amazing to me is how much we’re capable of when necessity requires it. If someone had asked me if I could deliver a baby at home, I would have emphatically assured them that I most certainly could not. In retrospect, I shouldn’t have been so quick to doubt myself. This is now my third year of medical school. I’ve studied longer hours, worked longer shifts, and gotten more done on less sleep than I ever thought I could. I was certain that I couldn’t deliver a baby at home, and yet I did. It’s exciting to be wrong about my self-imposed limitations. I look at my new daughter with new hope in my heart. What else have I been wrong about?

About Kevin Lowder

Born and raised in Northern California, I attended Brigham Young University in Provo, Utah. After a two-year deferral of my enrollment in college to serve a mission for the Church of Jesus Christ of Latter-Day Saints in Brazil, I returned to BYU, and one year later married my wife, Rachel. We had our first child seventeen months later as I was completing my bachelor’s degree in Nutritional Science. I am now attending medical school at the Texas Tech University Health Sciences Center El Paso Paul L. Foster School of Medicine, and love coming home each evening to the laughter and smiling faces of all my girls.
Throughout history there have been examples of individuals being tortured and maimed in order to obtain proprietary information. It’s hard to believe, but even in today’s world, torture is common and an almost daily news topic. Here is a fictional portrayal illustrating known tactics employed to obtain information from detainees:

A man is taken into custody by the United States Central Intelligence Agency (CIA) on suspicion of conspiring to conduct acts of terrorism. While detained, the man is subjected to enhanced interrogation techniques in order to extract information. After a few days of interrogation, the man confesses, in great detail. He also reveals his plans to attack buildings in major metropolitan cities in an attempt to maximize the loss of life. Despite the lack of sound evidence against the man, like incriminating e-mails or suspicious travel history, the case against him is thought to be particularly strong. During the interrogation, the man provides detailed and specific information about terrorist groups and other topics that the interrogators believe only an insurgent could know. The next day, the man confesses again to the charges, provides the interrogators with additional information regarding other operatives and targets, and undergoes examination by a CIA-contracted physician to determine his physical and mental health.

During the physical exam, the man confides in the physician that he is innocent of the crimes for which he is being charged. He claims that his confession was due to the intense interrogation techniques, and he would have said anything to make it stop. During the physical exam he is alert, aware of his surroundings, and without any obvious mental illness. The detainee suffers from chronic asthma, but the physician does not report this because he fears that it could preclude additional interrogation sessions.

The physician knows the interrogation techniques used on the man were inhumane and in contradiction of his sworn professional oath. He must approve the detainee for additional interrogation or face charges of abandonment, and permanent blacklisting by his employer. He recommends that more extreme techniques like waterboarding be discontinued in favor of milder ones, for he fears that respiratory stress induced by waterboarding could exacerbate the man’s asthma, and potentially result in his premature death. The physician recommends stress positions and prolonged standing as alternatives.

It is later discovered that the man is innocent of the crimes with which he was charged. He has no connections to terrorist groups, he has never trained to conduct acts of terrorism, and he has no intention of hurting anyone. The man was falsely detained on insufficient evidence, suffered inhumane interrogation techniques, and provided false information.¹

¹ Taylor R. Brooks

Breaking the oath: Why physicians torture

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The author is a second year medical student at the University of Cincinnati College of Medicine. This essay won honorable mention in the 2015 Helen H. Glaser Student Essay Competition.
Breaking the oath

On December 9, 2014, the Congressional Senate Select Committee on Intelligence released a report summarizing the CIA’s detention and interrogation program. The report documented interrogation events involving detainees in the years after the September 11, 2001, terrorist attacks. Following the report’s release, many expressed their disgust with the CIA and the people who assisted them, including physicians involved in the design and facilitation of what many have called torture.

Torture, as defined by the American Medical Association (AMA), is “deliberate, systematic, or wanton administration of cruel, inhumane, and degrading treatments or punishments during imprisonment or detention.” This definition encompasses some of the “enhanced interrogation techniques” employed by the CIA, e.g., sleep deprivation, cramped confinement, prolonged stress positions, waterboarding, and humiliation.

The Senate report describes the enhanced interrogation techniques, and implicates physicians in at least three ways: physicians designed methods that would not leave physical evidence; physicians monitored the health of detainees in order to prolong interrogation sessions; and physicians falsified medical records and death certificates to conceal the sometimes fatal results of interrogational torture.

The AMA formally rebuked the actions of physicians who participated in the CIA interrogations affirming that complicity with, or participation in, torture violates core tenets of medical ethics, and compromises the role of physicians as healers. Not only does partaking in torture transgress the principle of non-malfeasance—first, do no harm—but it also contravenes the Hippocratic Oath, and devalues the societal role of physicians to intelligence gathering.

Lessons from the literature

Torture has been used for thousands of years to extract information from detainees. The ancient Athenians used torture to extract information from slaves, while the Romans used it to garner information as well as to punish. In the Middle Ages, the first “how-to” interrogation manual was drafted by monks and used to obtain confessions from parishioners. Processus inquisitionis, as it was called, instructed clergymen to lead the penitent through the examination of their conscience. It gave tips on how to excavate the motives and circumstances surrounding an event, and how to help contrite parishioners overcome obstacles to truthful confessions. This manual was the modus operandi for the next few centuries until The Enlightenment, when judicial evaluation of evidence and the court system superseded confessions as the preferred modality by which investigations proceeded. Other, more sophisticated forms of criminology replaced torture as information-gathering tools.

Torture was resuscitated in the twentieth century by the regimes of Benito Mussolini, Joseph Stalin, and Adolph Hitler, who institutionalized torture. They authorized the practices, protected the practitioners, and combined torture with fear and propaganda in order to exert the dominance of the state over her enemies.

The heinous acts of Nazi physicians during World War II are perhaps the most recognized examples of torture in modern history. Their actions were placed under scrutiny in trials following the war. The repercussions of the trials eventually led to the adoption of the first international human rights agreements, the United Nations Universal Declaration of Human Rights, and the Fourth Geneva Convention. Since the ratification of these articles nearly seventy years ago, other protocols, declarations, and conventions have been drafted with the intent of aiding medical personnel in defining and preventing torture.

Despite torture’s long history and the wealth of proclamations against it, there is a dearth of empirical studies on its efficacy in producing true, reliable information. According to research obtained from law enforcement, the social sciences, and governmental agencies, the use of coercion appears to harm intelligence collection and analysis. When detainees are subjected to coercive interrogation tactics, resistance to cooperation and the probability of admitting false confessions both increase. Coercion creates a competitive dynamic between the interrogator and the subject. Detainees subjected to coercion are more likely to reject the interrogator’s position and not comply. In contrast, detainees subjected to tactics involving persuasion with the potential for mutual gain are more likely to engage in productive conflict resolution.

When detainees are threatened, they are likely to become more resistant to further interrogation. The strength of resistance is largely determined by the nature of the threat and how the interrogator delivers it. The most effective threats are subtle, and are perceived by the target as legitimate, whereas extreme or transparent threats—the threat of death—tend to make subjects significantly less compliant. Subjects are more likely to cooperate when the appeal to fear is high, the legitimacy of the threat is established, and the reward for compliance is significantly more favorable than consequences of the threat.

Research in the social sciences and law enforcement
supports the use of non-threatening interrogation methods. It encourages the use of alternative techniques that increase rapport between parties. Proponents argue it may be more effective to identify and manage the roots of noncompliance before resorting to coercive measures. In these scenarios, interrogators depersonalize the interaction, and speak of hypothetical situations. Interrogators attempt to bolster the subject’s self-esteem and sense of competence by reframing their role as an expert rather than a target. Techniques that avoid coercion yield more accurate information than those that incorporate coercive measures which are more likely to yield false confessions.

When using coercive measures detainees feel forced into making false confessions as a means to escape a stressful or unbearable situation. The intelligence they provide seems plausible, so it provides temporary relief while the interrogators investigate the leads. The detainees fully appreciate the potential adverse consequences of their false confession being exposed—like punishment and prolonged, harsher interrogation—but they place more value on relief from the current situation than on the aversion from future punishment for a false confession.

Lessons from governmental organizations

In the 1950s, the United States government began exploring the limits of human consciousness in order to develop weapons against the Soviet Union. Chilling, yet unsubstantiated, stories circulated among CIA agents about how the Soviets used techniques like brainwashing and truth serum to gather information about the Allies. The CIA was convinced that “the style, context and manner of delivery of the ‘confessions’ were such as to be inexplicable unless there had been a reorganization and reorientation of the minds of the confesseses.”

In an effort to uncover the secrets of the allegedly successful Soviet interrogation techniques, the CIA undertook a monumental effort devoted to conventional research into human psychology and interrogation techniques. Between 1956 and 1963, the CIA and the American government spent billions of dollars on this research, and named the collective effort “project MKUltra.” During this time, approximately one hundred patients admitted to the Allan Memorial Institute in Montreal, Canada, became unwitting test subjects for the CIA’s psychological research project. These individuals were subjected to prolonged isolation and sensory deprivation designed to increase their willingness to divulge different types of information. By 1963, CIA researchers determined that these types of techniques far exceeded more injurious and coercive techniques in their efficacy. Individuals subjected to isolation and sensory deprivation for even a few days became significantly more compliant with the interrogation.

The findings of the CIA’s research between 1950 and 1963 were compiled as the foundation for the KUBARK
(the code name the CIA used for itself) interrogation manual. This manual served as the CIA’s foremost interrogation reference for the next forty years, and spawned others, including the CIA’s Human Resource Exploitation Manual of 1983, and the Army Interrogation Field Manual FM 34-52 of 1987. These manuals tailored the KUBARK interrogation techniques to diverse populations and scenarios. The KUBARK manual also laid the foundation for the CIA’s modern-day interrogation strategies, which eventually made their way into the protocols of United States interrogation efforts following 9/11.

The efficacy of different interrogation techniques was meticulously documented and evaluated from the beginning of project MKUltra. In criticism of the KUBARK interrogation strategies, it was noted that death threats are often “worse than useless.” The evaluations of the Human Resource Exploitation Manual reached similar conclusions, stating that “use of force is a poor technique.” Other countries investigating torture as an interrogation tool found it to be unreliable as well. Reports from Nazi Germany, China, North Vietnam, Great Britain, and Israel all found torture to be unreliable during questioning. As predicted by situations in law enforcement, prisoners subjected to torture gave inaccurate, misleading, or blatantly false information under duress. One study showed that American prisoners of war were more resistant to interrogation when physically tortured; they were more likely to make anti-American statements only when interrogated by other, non-coercive means.

The findings in the Senate’s 2014 report were consistent with research in the social sciences and law enforcement, as well as the reviews of MKUltra and its progeny. The Senate report concluded that enhanced interrogation techniques used on detainees after 9/11 were an ineffective means of obtaining accurate information and gaining detainee cooperation. Of the detainees subjected to enhanced interrogation techniques, 18% produced no intelligence whatsoever. The Senate also discovered that multiple detainees fabricated information on top-priority issues. One of the United States government’s highest priority targets in the War on Terror, Khalid Sheikh Mohammed, often provided fictitious or inaccurate information as a means to escape the enhanced interrogation techniques he was undergoing. Repeatedly, he admitted to plots that were abandoned or already disrupted, and confessed false information in order to tell CIA interrogators “what he thought they wanted to hear.”

The report disclosed a review conducted by the Office of the Inspector General that evaluated the CIA’s claims of the effectiveness of enhanced interrogation techniques. In regard to potential terror plots, it concluded, “it is not clear whether these plots have been thwarted or if they remain viable or even if they were fabricated in the first place. This Review did not uncover any evidence that these plots were imminent.” In addition, members of the CIA directly involved in the interrogation of Mohammed noted that he “responded more to ‘creature comforts and a sense of importance’ and not to ‘confrontational’ approaches.” In addition to Mohammed, multiple other detainees provided “significant accurate intelligence prior to, or without having been subjected to these techniques.”

The primary conclusion of the Senate report was that “use of enhanced interrogation techniques was not an effective means of acquiring intelligence or gaining cooperation from detainees.”

How could they?

The CIA’s efforts paralleled the findings in the literature and confirmed torture’s futility to acquire factual and advantageous intelligence. Given these observations, and the fact that torture violates codes of medical ethics, the salient question remains: why are some physicians still complicit in torture?

Physicians may comply with torture for a number of reasons, but perhaps the most important is that the physicians who work for military or governmental organizations have to emphasize nationalistic or institutional loyalties over the duties they have to their patients. According to their professional oath, physicians are responsible for increasing good, and decreasing suffering for their patients. According to their nationalistic or organizational loyalties, physicians must help the CIA obtain the amount of true, reliable information that will save the greatest number of lives, by any means necessary. When these two systems contradict each other, the physician is faced with a dilemma: does the physician act in the best interests of the patient, or the country? Physicians are often forced to choose the good of many over the good of a few because of the institutional dogma within which they operate.

After 9/11, CIA-contracted physicians adopted a commonly employed anti-terrorism philosophy, the “ticking time bomb” scenario, wherein the detainees are the enemy in the eyes of the CIA, and each of them has valuable information that may save innocent lives. Moreover, there is a finite time until a future enemy attack such that the interrogators are “racing against the clock.” Therefore, the CIA and the physicians it employs must extract this
critical information by whatever means necessary.

The benefits of extracting information are putatively great as they may prevent another attack similar to 9/11. Hence, physicians are justified in abetting or engaging in torture in order to save the lives of many.

Hollywood also makes a seductive case for torture’s usefulness and its place in the interrogation process. The television series 24, and numerous others including Homeland, The Blacklist and Chicago P.D., portray torture and coercive interrogations as a “secret weapon” that agencies employ against the enemy with 100% efficacy. These shows, and others like them, have been criticized for potentially breeding American acceptance of torture.

CIA representatives appeared numerous times before the United States Department of Justice and presented inaccurate information about the importance, and success, of the interrogation program. The CIA framed their actions within the ticking time bomb ideology, and claimed that enhanced interrogation techniques produced specific, actionable intelligence that saved lives.

The CIA may have reiterated these claims in combination with Hollywood dramatizations in order to convince physicians of torture’s efficacy and motivate them to commit human rights atrocities. Thus, physician adoption of institutional ideology, in combination with high contextual tension, is possibly a motivator for physicians to commit human rights violations.

Perhaps another reason for physician participation in torture is that the physicians who abet torture believe it may help them promote their careers. They comply with their institution’s policies and attitudes on torture, despite any ethical qualms they may personally hold. Their goal is to ascend rank, and gain the accompanying prestige.

German physicians joined the Nazi party and adopted its views, including the pseudoscience of eugenics. During the war, these physicians were portrayed as noble instruments of “public health” as they conducted genocide. Infamous Nazi physician Josef Mengele espoused this career path, and he became a high-ranking SS officer for his (ultimately misguided) efforts.

Similarly, physicians are rewarded with status and prestige for using their advanced medical knowledge to further the cause of the institution. Psychologists Jim Mitchell and Bruce Jessen made eighty-one million dollars for designing the CIA’s interrogation program.

Lucrative opportunities, in combination with the prestige of a high-ranking position and power over another human being, may explain why some physicians have been torn from the more noble duties of their profession.

**Conclusions**

Physicians contracted by government agencies could be considered sentinels for human rights violations. They receive the patients Amnesty International and the Red Cross may never see.

When presented with potential cases of torture, physicians must remain steadfast to the codes and ethical tenets of their profession regardless of the scenario and irrespective of their employer.

It is clear that the use of torture during interrogations is ineffective at producing factual, reliable information. The variety of false information obtained through torture may confound intelligence efforts, and result in significant setbacks. Torture also fails to advance national interests as it alienates potential informants due to fear of suffering a similar fate, and it infuriates the populations at whom the torture is directed. Torture creates new enemies and distances old allies, and it stoops to the brutal level of terrorism by fighting one iniquity with another.

The philosophical assumption upon which torture rests is mistaken. The ticking time bomb scenario has its roots in utilitarianism—by torturing a few, the lives of many can be saved, so the ends justify the means. This approach assumes that the detainees know when the next attack will take place, and the information they provide as a result of torture will be true.

In order to prevent physician compliance with torture, punitive measures, awareness, and education need to be emphasized. It is nearly universally accepted that torture is unethical and in violation of human rights. Countries should actively support extant human rights proclamations by prioritizing the identification and persecution of physicians who torture. Argentina and Chile, whose government bodies aggressively pursue physicians involved in torture, serve as models. These countries provide a reporting mechanism whereby claims of human rights violations may be made to the appropriate state departments in order to prompt an investigation. Licensing medical organizations, in collaboration with the government, then sanction physicians found guilty of the charges brought against them.

In addition to vigorous pursuit of offenders, countries should widely publicize these investigations. The spectacle of public shaming, in combination with steep sanctions, may deter physicians from complying with torture. Fervent news coverage of these investigations draw the topic into the public eye. Widespread support of anti-torture sentiments may impel physicians to take up the cause and identify those who comply with torture.
These physicians, together with motivated individuals outside of medicine, can form interdisciplinary teams dedicated to the identification of any individual who participates in torture. Dr. Steven H. Miles, a professor of medicine and bioethics at the University of Minnesota, is a leader in the movement to end torture. He maintains a website, www.doctorswhotorture.com, that provides resources and documents countries that have successfully held physicians accountable for participating in torture. Websites like Miles’ aid in the dissemination of relevant information against torture, and serve as a rallying point whereby individuals of varied backgrounds can converge, exchange ideas and information, and work together to end torture.

Education about torture and how to stop it should be incorporated at all levels of medical training. Instruction in medical ethics with a focus on medical complicity in torture has been proposed as a supplement to medical school curriculum. Lessons in medical ethics, complemented by the evidence against the efficacy of torture, can teach medical students how to identify and advocate against medical complicity in torture. Additionally, continuing medical education credits could be provided to physicians who enroll in ethics classes that focus on advocating against torture. These curricular expansions will inform medical professionals of the evidence against torture, and educate them on the most appropriate course of action when torture is suspected or recognized. Those dedicated to the medical profession should do everything in their power to unite against physician complicity with torture and stop it.

References


About Taylor Brooks

I am a second year medical student at the University of Cincinnati College of Medicine. I enjoy writing scholarly essays, philosophical essays, and poetry in my free time. I aspire to a career in internal medicine, and I hope to maintain writing as an integral part in both my personal and professional lives.
**Medical in the movies**

**It’s still alive: Victor Frankenstein**

Mary Shelley’s *Frankenstein* (1818) remains as popular today as it was during the author’s era—perhaps even more so. Her novel has become the fountainhead for seemingly endless rivers of remakes, sequels, plays, video games, and various other types of productions that continue to inundate our TV, Internet, and movie screens. None of the friends—Lord Byron, Percy Shelley, John Polidori, MD—telling ghost stories in the elegant Villa Diodati near Lake Geneva (Switzerland) during the wet summer of 1816 could possibly have imagined the astounding success of young Mary’s story. Neither could they have envisioned that her book’s title would become a perennial catchword encapsulating society’s fears of misguided scientific experimentation and unruly technologies. Far more than simply a work of fiction, Frankenstein has morphed into a cultural myth that continues to exert a profound

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**Lester D. Friedman**

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**Victor Frankenstein**

Starring Daniel Radcliffe, James McAvoy, Jessica Brown Findlay.


Something was waiting for him in the darkness, a part of himself he could not deny.  
—Alice Hoffman  
*The Museum of Extraordinary Things*¹
influence on the dreams and nightmares of Western civilization.

Had it not been for the movies, as Stephen King observes in *Danse Macabre* (1980), Mary Shelley's "modest gothic tale" might well have remained the province of earnest English majors, instead of transforming into an immensely popular cultural archetype.

At last count, some 200 movie titles with the word "Frankenstein" embedded within them currently exist. This list includes titles with the words "Frankenstein" and "Monster," titles with the words "Frankenstein" and "Doctor," and titles with a reference to "Frankenstein" noted. These productions about the man and his creation have an extensive history, stretching from silent films such as Edison's *Frankenstein* (1910), to *Victor Frankenstein* (2015), and forward into forthcoming productions such as *This Dark Endeavor: The Apprenticeship of Victor Frankenstein*, *The Casebook of Victor Frankenstein*, *Frankenstein Created Bikers*, and director Guillermo del Toro's planned adaptation. That's not even considering ongoing TV programs (*Penny Dreadful*), and video games for children (*Island of Dr. Frankenstein*) and adults (*Frankenstein: Through the Eyes of the Monster*).


Both the Universal and the Hammer films circle around the same general ideas gleaned from Mary Shelley, including scientific hubris, the morality of medical research and experimentation, and the enduring battle between doing good for society and being seduced by hubris to do evil, but with a different emphasis. While the Universal directors shot in black-and-white, their later counterparts saturated Hammer's productions in vibrant color—mostly a lurid red, of course.

Universal's directors filled their worlds with the cavernous residences of aristocrats, while Hammer's characters usually work within more middle-class environments. The Universal films exist in an uncertain time frame and fictional countries, whereas most Hammer versions take place during the Victorian era. In the earlier Frankenstein movies, violence is usually depicted off screen, in the
shadows or in quick sequences, while the later movies show their characters’ nasty deeds and macabre murders in more graphic detail. Finally, in the Hammer movies, Frankenstein’s creation usually appears opaque, one-dimensional, and animalistic, unlike his more sympathetic portrayal in previous films produced by Universal.

Most crucially, however, the Hammer cycle shifts the focus of the Frankenstein films from reanimating dead tissue to transplanting organs and body parts. When Universal’s creature awakes, he has no idea whose body parts and organs compose him, no memory of a past history, and he never inquires about the identities of his donors. Is he, therefore, human, animal, or something in between? Conversely, the Hammer films never question whether the creature is human or something entirely different. Such fundamental identity questions strike a decidedly modern note.

The newest branch of the Frankenstein family tree, Victor Frankenstein, offers an intriguing perspective from which to consider the basic flow of the Frankenstein narratives that examine the outcomes, costs, and responsibilities of creating artificial beings or reanimating dead bodies.

Here, Frankenstein’s (James McAvoy) assistant Igor (Daniel Radcliffe) becomes the central figure. (Although Shelley never included such a figure in her novel, he first appeared in nineteenth-century stage adaptations and later became a staple in the Universal movies.) Frankenstein frees Igor from his life as an abused circus clown, eliminates his physical deformity, recognizes his brilliance, and employs him as an assistant in his laboratory experiments to create life from dead matter using electricity. Together, they build a large human being, called Prometheus (Spencer Wilding), that contains two hearts and two sets of lungs, and shock him into life using a variety of devices and lightning.

From there, of course, things go badly and people are murdered. Eventually, the creature is killed, while Frankenstein escapes to the Scottish countryside, perhaps to continue his experimental quest. Although Director Paul McGuigan mounts a stylish production, Victor Frankenstein’s almost two-hour running time moves in fits and starts. The plot never manages to capture the viewer’s attention, and the characters are basically one-dimensional. It also engages only superficially with the profound questions raised in Shelley’s novel and the best of its adaptations, choosing instead to focus on a trite romantic story, and appending characters who add little to the overall complexity of the story.

Take my advice and save some money. Instead, download the 1931 Boris Karloff version or, perhaps even better, watch Bride of Frankenstein (1935).

Frankenstein is inescapable. As Allison Kavey notes in Monstrous Progeny: A History of the Frankenstein Narratives, this morning you could have eaten a marshmallow Frankenstein creature for breakfast, and while reading your newspaper, encountered an analogy between Monsanto’s genetic manipulation of crops and Victor Frankenstein’s creation. On the way to work, you might have seen a billboard advertising the latest Frankenstein film while your local radio station compared the generation of organs from stem cells to Victor’s transformation of dead flesh into a living monster. At Dairy Queen, you could purchase an ice cream bar—in an attractive shade of green—made to look like the creature, while watching his cartoonish offshoot on The Munsters.

Frankenstein and his creature appear as icons of scientific hubris, consumable tasty treats, and artistic representations of the monstrous—sometimes comic, sometimes tragic, but always the same story with the same characters struggling through serial murders, madness, despair, and pitchfork-wielding mobs.

Kavey rightly contends that we turn back to Mary Shelley’s fictional character and his grotesque creation to tell us more about how to be human, and we are frustrated when we find more questions than answers. The novel emphasizes the importance of limiting scientific inquiry to approved topics and methodologies, but it goes silent on some very important points, not the least of which is...
what constitutes humanity, and can it be manufactured? The flip side of that question is also important: Are all people inherently capable of humane behavior, or must the human characteristics of ambition and desire derail the angels of our better natures and thus endanger our ability to be human?

These are not simple questions, and they keep us coming back. Our constant need for Frankenstein tells us not how far we have come in the last two hundred years, but how little distance we have covered in reconciling ourselves to the complicated competing demands of defining “good” scientific work in balance with ethical treatment of subjects. Like the creature himself, these questions remain omnipresent despite our best efforts to banish them.

Interesting medical connection

The pacemaker came from the Frankenstein movie.
—Jean Rosenbaum, MD from the short film, Frankenstein and the Heart Machine (The Pacemaker)

Jean Rosenbaum, MD, the inventor of the pacemaker, freely admits that his inspiration for this widely used invention “comes from the Frankenstein movie.” In 1951, as a freshman medical student, he witnessed the untimely death of a young woman whose heart stopped beating, a disturbing event that almost caused him to drop out. That night, Rosenbaum had a vivid dream about Frankenstein’s creature (he had seen the 1931 film as a young child) being hoisted into the lightning storm and the electricity that brings him to life. Inspired by this, Rosenbaum wondered if a small jolt of electric current could be mechanically produced to stimulate a damaged heart to cause it to beat regularly, thus reviving a patient. He put together a portable machine to perform this function but, after testing the results successfully on animals and freshly arrived DOAs, his superiors still deemed the process too dangerous for use on a living human being. Frustrated during this two-year waiting period, Rosenbaum (nicknamed the “Black Vulture” by his colleagues) felt like he was Dr. Frankenstein, and the timorous medical community the frightened town mob. Finally, he was given a chance to demonstrate how the machine would work on a patient whose heart had stopped for three minutes. The rest is medical history.

References

Thank you, Dr. Dans

After twenty-six years of writing “The physician at the movies,” Dr. Peter Dans (ΑΩΑ, Columbia University, 1960) is retiring to sit back and enjoy movies as entertainment.

I know I speak for all of us at The Pharos, and for all our readers in saying, “Thank you, Dr. Dans.”

Dr. Dans is a graduate of Columbia University College of Physicians and Surgeons, and did his residency on the Osler Medical Service at Johns Hopkins Hospital. He was one of the first assistant residents to be sent to Calcutta for three months to care for cholera patients, following which he finished his residency at Presbyterian Hospital in New York. He subsequently was a United States Public Health Service research associate in viral diseases at the National Institutes of Health, and did an infectious diseases fellowship at Boston City Hospital.

Thank you, Dr. Dans
Dr. Dans joined the faculty at the University of Colorado Health Sciences Center (UCHSC) in 1969, where he was director of student/employee health services. While at UCHSC, he also started an adult walk-in clinic, sexually transmitted diseases clinic, and a migrant health clinic. During this time, he was recognized as an outstanding teacher, practitioner, and scholar.

In 1978, he was named a Robert Wood Johnson Health Policy Fellow at the Institute of Medicine at the National Academies of Sciences. He then returned to Johns Hopkins Hospital where he established an Office of Medical Practice Evaluation. At this time, he also directed the medical school course, “Ethics and Medical Core,” and served as deputy editor of the *Annals of Internal Medicine*.

Dr. Dans has had a long-standing interest in, and passion for, the movies. He ran a movie program at the University of Colorado for faculty to watch a movie and then have an in-depth discussion following the viewing.

At Johns Hopkins, he was the AΩA Chapter Councilor, and he and Ralph Crawshaw (*The Pharos* original movie reviewer) did a presentation exploring how medicine was portrayed in film.

In 2002, Dr. Dans published the book, *Doctors in the Movies: Boil The Water And Just Say Aah*.

Over the years, Dr. Dans has written more than 280 movie reviews. In addition, he has published four articles in *The Pharos*—“The great zebra hunt: A view of internal medicine from the walk-in clinic” (1978); “Passengers and patients: Some ruminations about quality of care” (1988); “Is Alpha Omega Alpha still relevant?” (1994); and “David Seegal: Ic ne wat and other maxims of a master teacher” (2014).

Dr. Dans has served our profession, AΩA, and *The Pharos* with dignity and perspicacity. He is an outstanding clinician, teacher, scholar, leader, and writer.

Thank you, Dr. Dans, for all you have contributed to advance and influence the medical profession. And thank you for your invaluable movie reviews, they have been entertaining, insightful and truly enjoyable. We wish you the best!

Richard L. Byyny, MD, FACP

Editor

Dr. Dans was taught and mentored by outstanding teachers and clinicians, including:

Warde Allan, MD
Dana Atchley, MD (AΩA, Johns Hopkins University, 1915)
Paul Beeson, MD (AΩA, McGill University Faculty of Medicine, 1946)
Katherine Borkovich, MD (AΩA, Johns Hopkins University, 1939)
Richard Chase, MD
Leighton Cluff, MD (AΩA, George Washington University, 1962)
Loretta Ford, MD
Robert J. Glaser, MD (AΩA, Harvard Medical School, 1953)
Mac Harvey, MD
Bob Heyssel, MD
Edgar Leifer, MD (AΩA, Columbia University, 1945)
Victor McKusick, MD (AΩA, Johns Hopkins University, 1946)
Gordon Meiklejohn, MD (AΩA, McGill University Faculty of Medicine, 1936)
James Morgan, MD
Richard Ross, MD (AΩA, Harvard Medical School, 1947)
David Seegal, MD (AΩA, Harvard Medical School, 1927)
Henry Silver, MD (AΩA, University of Colorado, 1969)
Charles Smith, MD
Arthur Wertheim, MD (AΩA, Sidney Kimmel Medical College, 1938)

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Dr. Dans,

Reading your article “David Seegal: Ic ne wat and other maxims of a master teacher” in the Autumn 2014 issue of *The Pharos* (pp. 4–7) was refreshing to me. I wanted to thank you for it. Recognizing our own pitfalls and acting on them to improve and provide the best patient care is pivotal, and important to be taught to physicians in training.

I will be using your article as a reference for the students and residents that rotate with me. I also gave a copy to my son, who is fifteen years old, and desires to one day become a physician.

Once again, thanks!

Monica M. Manga, MD (AΩA, University of Texas Medical School at Houston, 2005)
Visalia Medical Clinic
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“Resilience and leadership for the challenges ahead”

In the Autumn issue of The Pharos (pp. 2–4), Darrell G. Kirch, MD, writes movingly about physician burnout, depression, and suicide. In the same issue (pp. 66–7), Paul D. Miller, MD, laments the rise in authority of insurance companies and hospital administrators whom he sees as muscling doctors and patients aside in making medical decisions. While most would agree that what is ailing American medicine is overdetermined, it seems to me that there is an important nexus between the thoughtful observations of Drs. Kirch and Miller: In recent decades, while doctors were busy taking care of patients, corporate actors seized the opportunity to assume a dominant role in the culture of medicine, resulting in many of today’s dystopian realities.

What is wrong with the rise of corporate medicine is that free market values, which may be perfectly fine in the making of automobiles (things like the allocation of capital to pay shareholders, advertisers, and executives) have little legitimate place in medicine. The private health insurance industry offers an excellent example: For insurance companies, any thoughtful, market-driven business plan calls for delay, if not outright denial, of benefit payment. The virtually universal experience of doctors, patients, and hospitals bears testimony to this. Yet more problematic is the industry’s shameless use of a metric called “medical loss ratio.” Defined as that portion of the premium dollar that actually goes to provide care (as opposed to being siphoned off to executives, shareholders, and other overhead), this measure reflected a headlong race to the bottom in the industry until the Affordable Care Act (ACA) limited these excesses. In short, market-driven insurance all but assures uncertainty and dysfunction in the delivery of care. Health care should be financed as are other public goods like fire and police protection, not in a manner more appropriate to discretionary consumer spending.

Sadly, the wasteful excesses of free-market medicine are not limited to the private sector. In order to survive in this byzantine system, nonprofits have had to bulk up, hiring armies of billing specialists, middle managers, and executives (the latter command salaries that are often commensurate with the excesses of the private sector). While adding lots of cost to the nonprofit’s balance sheet, these workers typically deliver no patient care.

What has not changed in contemporary medicine is that doctors, nurses, and other clinicians who work with patients continue to deliver the goods. What has changed is that the efforts of these clinicians (the billable life blood of the system) must now support the burgeoning army of non-clinical personnel needed to run the hospital or the practice—is it any wonder that solo practitioners are vanishing? The math simply won’t work. Doctors then inevitably fall under the lash of “productivity metrics,” feel subjugated by their corporate overseers, and are prone to becoming demoralized. This existential state, of course, looks phenotypically very much like depression.

Kirch looks hopefully to medical leadership. Unfortunately, much of the training of tomorrow’s physician leaders seems to emerge from and to replicate the very corporate models that are weighing us down. More unfortunately, the seduction of the board room and of inflated compensation (the golden handcuffs that often seem to bind physician leaders to the corporation) appear at times to distract these leaders from the primacy of patient care and from loyalty to colleagues. If leadership is the answer, it lies more in the model of Moses than of Donald Trump.

Despite this carping, I share Kirch’s hope for American medicine. (I would do it all over again.) The science that informs our work is breathtakingly exciting, and is just getting better. The scope of our ability to help patients is growing apace (consider the example of childhood
leukemias). And we continue to attract medical students and residents who, if anything, are better than we were. I just hope that the excesses and inequities of free-market medicine don't steal their idealism. And I hope, perhaps against reason, that there may be among them a Moses or two who can lead us out of our bondage to the corporation.

References

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“The tragedy of the electronic health record”

I couldn’t resist placing captions on the cover of the Summer 2015 issue of The Pharos. I feel it truly represents a capsulized interpretation of the major problems with the use of electronic health records.

Mario J. Sebastianelli, MD (AΩA, Sidney Kimmel Medical College, 1961)
Dunmore, Pennsylvania
For Christmas, my wife ordered an elaborate train set for our two-year-old grandson. The gift arrived in the mail two days before the holiday. My job was to assemble it. How hard could it be? After dinner, I went to the basement and opened the large, brown box. There were hundreds of pieces, including more than fifty screws and bolts, and fifteen pages of instructions! Several hours into the construction, I felt frustrated and inept. I have never considered myself mechanically inclined. That’s the story I’ve been telling myself for years. However, what would happen if I told myself a different story? I could say to myself: I may not be an engineer, but with time, patience, and persistence I can put this thing together.

In their superb, fifth edition of *The Fifteen Minute Hour: Therapeutic Talk in Primary Care*, Marion Stuart, PhD, Professor Emeritus of Family Medicine, Robert Wood Johnson Medical School, and Joseph Lieberman, MD, MPH, Professor of Family and Community Medicine, Thomas Jefferson University, define psychotherapy as “helping patients to edit their stories. It is clear that the stories we tell ourselves about who we are and of what we are capable determine how we will function in the world and to what extent we will achieve our potential.”

Patients usually don’t complain about their inability to build toy trains, but they do stress over how to quit smoking, modify their diets, curb alcohol use, or live a meaningful life. Stuart and Lieberman provide pragmatic ways for primary care physicians to coach patients through these challenges. One of my favorite tips is: recognize the amazing power of the word “yet.” Remind the patient, you haven’t quit smoking yet. This statement communicates the physician’s confidence in the patient’s ability to quit—maybe not today, but sometime in the future. Over time, the patient begins to tell himself a different story—I can do this!

The authors report that primary care professionals fail to recognize two-thirds of emotional disorders. Productivity demands, time constraints, lack of curiosity, and insufficient skills hinder their efforts. Stuart and Lieberman urge practitioners to use a technique called “BATHE,” an easy acronym to help remember to explore the psycho-social problems of a patient:

B is for background—“What has been going on in your life since your last visit?”

A is for affect—“How do you feel about it?”

T—“What troubles you the most about it?”

H—“How are you handling it?”

E is for empathy—“That must be difficult for you.”

The authors explain how the same BATHE acronym can be used to explore not only the patient’s psycho-social problems, but also the positive experiences in the patient’s life:

B—“What’s the best thing that’s happened to you since your last visit?”

A—“How did that make you feel?”

T—“What are you most thankful for?”

H—“How can you make that positive experience happen again?”

E is for empowerment—“That’s fantastic!”

In this new edition, they expand on ways to make the patient feel responsible, confident, and accepted for the person they are. Therapeutic progress does not occur unless the patient feels heard, appreciated, and highly regarded by the professional:

Before we can make a therapeutic intervention, we must listen and hear the patient’s experience of pain, frustration, anxieties, or perceived limits. Patients must be allowed to tell their stories. It is crucial to encourage patients to give us a brief synopsis rather than a multi-volume saga. A useful technique is to lead with an open question, such as “Tell me briefly” . . . let the patient talk for about two minutes and then summarize what we have heard. . . . When you actively listen and then reflect the patients’ concerns back, patients know that they have been heard and understood. We cannot provide reassurance or remove impediments to adherence until we accurately define the patient’s concerns. When this is followed by empathic responses, it makes patients feel competent as well as connected to the practitioner. This creates a highly therapeutic condition.

None of this is easy to do, especially in an era in which physicians are rewarded more for productivity, efficiency,
and documentation than their ability to form trusting relationships with their patients.

For those of us who want to improve our communication and relational skills, there are few books better than this one. I've read it multiple times, and return to it frequently. The fifth edition provides updated chapters and excellent references on mind-body relationships, cognitive behavioral therapies, and the particular challenges of difficult patients. Furthermore, I’ve found the BATHE techniques helpful in my relationships with friends and family. For example, when I ask my daughter, what’s the best thing that happened in school today, it implies something positive really happened in school today (she simply has to search her mind for it).

The authors can be a little repetitious (they spend a lot of time on BATHE), and they include more psychology than most internists and family physicians probably care to read about. However, I believe the payoffs are considerable. Developing curiosity, deep knowledge, and concern for the patient’s psychological health is a great way to connect with our patients, and to get the results we want for our patients. Building trusting relationships is one of the fundamental joys of practicing primary care medicine.

Speaking of building, I finally finished my grandson’s train set. The train tracks, tunnels, and bridges fit together, and the train runs smoothly. I doubt my grandson will notice that there were several screws and bolts left over.

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The History of Infectious Diseases at Duke University In the Twentieth Century

John D. Hamilton, MD
Lulu Publishing Services, Raleigh, North Carolina, 2015

Reviewed by Daniel Friedman, MD

Dr. John Hamilton, now retired, was a long-standing member of the Infectious Disease Staff at Duke University. He details the history of that department from his own extensive experience as well as the memories of many other faculty members and personnel. Having completed innumerable interviews, Hamilton compiles and organizes this vast amount of information into an exceptional and easily readable account. Some of the book is written for an audience limited to specialists in the field, but Hamilton’s descriptions of the beginnings of American public health, and the outline that he offers of various infectious agents, will be of interest to the general reader as well as the specialist.

To be honest, I was not certain this read would be terribly fun. I wondered how a single division of one department could form the basis for an entire book. I was most happily surprised.

The book is more than just a history of academic life, as Hamilton completes a thorough review of the Duke University Medical Center Archives. He examines the importance of many relevant infections, and gives his own account of some of the more important infectious diseases in the history of the American South.

The reader will better understand how tuberculosis, HIV, and a number of other diseases shaped communities, medical education, and public health. Most interesting to me as a cardiologist and a Duke University Medical School graduate, is how Hamilton reviews the development of the Duke criteria for endocarditis developed by Dr. David Durack and his colleagues.

As detailed in the book, many major contributors to academic medicine passed through the halls of Duke University, and shaped both the home institution and numerous other medical centers over the years.

The author also acts as a skilled historian in recounting the history of North Carolina, the city of Durham, the South, and the place of each in the United States as a whole.

Hamilton provides insights into the racial issues during the boom of the tobacco industry that so profoundly shaped the area. It is important to remember that racial segregation required separate medical schools and medical societies for Caucasian and African-American physicians. Conditions were poor, and mortality was much higher for African-Americans than for whites.

The author also details the $40 million gift James B. “Buck” Duke gave in December 1924 to create what is now known as Duke University. He describes the major players in the development of this most important
medical center and university, how challenging the start of the medical school was, and how persistence and Mr. Duke’s support paid off.

The references are extensive and will allow those interested in specific areas to delve much deeper. One cannot imagine the countless hours Hamilton invested in writing this book. The charts outlining the history of the Department of Medicine and the Division of Infectious Disease are very helpful. The average reader may not probe into every word, but the author’s historical insights are worthwhile and will be valuable to many readers.

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Do No Harm: Stories of Life, Death, and Brain Surgery

Henry Marsh, MD
St. Martin’s Press, New York, 2015

Reviewed by Herbert J. Hoffman, PhD

Dr. Henry Marsh’s treatise is more than just about life, death, and brain surgery. The strong philosophical observations, which are liberally sprinkled through the various chapters, enhance the author’s contribution to understanding the professional and personal life of a leading neurosurgeon.

The volume is composed of twenty-five chapters with titles such as “Haemangioblastoma,” “Leucotomy,” “Medulloblastoma,” and “Oligodendroglioma.” However, while these medical terms will be familiar to physicians, they should not deter the lay reader from opening Do No Harm.

Each chapter is like a short novella. The first ten chapters focus on the surgical successes (extraordinarily difficult cases primarily to remove or reduce brain tumors), and individual cases of Dr. Marsh, a British neurosurgeon. The descriptions of the surgery hold one’s attention with fierce focus.

The following chapters focus on Marsh’s mistakes and failures, both in surgery and diagnosis. He is brutally honest, and owns his responsibility and accountability in a way most accomplished neurosurgeons would have difficulty incorporating. Marsh even makes reference to instances in which he has advised next of kin to sue.

Marsh, who is now sixty-five years old, began his medical career as an orderly, matriculated through medical school, and was a senior house officer for eighteen months on an ICU. He was becoming bored and disillusioned by a career in medicine, when by happenstance he was invited to observe an operation to remove a brain aneurysm. This was his first time in the neurosurgical operating theatre, “it was considered too specialized and arcane for mere students,” he said. It was an operation to clamp off an aneurysm, and for Marsh, “it was love at first sight.” His passion for and dedication to his “love” is evident throughout the book.

Marsh’s choice to become a brain surgeon, specializing in tumors, turned out to have an ironic twist. At the age of three months his son was diagnosed with a tumor, located deep in his brain. Fortunately, following surgical removal, the tumor turned out to be benign. This experience helped Marsh gain insight about holistic care of his patients. “Anxious and angry relatives are a burden all doctors must bear, but having been one myself was an important part of my medical education.”

He gained further insight into his profession when he became a patient as a result of a severe threat to his eyesight, critical for a surgeon. In retrospect, he dismissed symptoms that he would have recognized in a patient. His treatment was spaced over a couple of months, interspersed by a broken leg, a vitreous hemorrhage and a retinal tear. After a series of successful outcomes, he reflected, “I had been lucky compared to my patients, and I was full of profound and slightly irrational gratitude for my colleagues that all patients have when things go well.”

Every surgeon deals with life and death decisions on a daily basis, working through outcomes that may or may not be positive for the patient. Marsh makes a number of pointed, relevant observations. He notes that surgeons, other than neurosurgeons, have patients who either die or recover. Not so for the neurosurgeon, their “failures” may linger on the wards for months, a constant reminder for a caring surgeon like Marsh. The favorite surgeon defense mechanisms of compartmentalization and denial are not prominent in Marsh’s repertoire. He describes cases in
which he develops an emotional investment in the patient and his efforts to cope, which underscores his basic humanity and commitment to his patients.

The neurosurgeon deals directly with issues of life and death on a daily basis—in addition to the in-between space of permanent disability. Brain surgery rarely comes about without significant risk to the patient’s quality of life—or life, itself. Marsh observes that as he has become older and more experienced, he has become more “realistic about the limitations of surgery,” and more concerned about the patient’s quality of life post surgery. “It is easy enough to let someone die if one knows beyond doubt that they cannot be saved.” The struggle comes for Marsh, “when I do not know for certain whether I can help or not, or should help or not, that things become so difficult.” Marsh shares his process of judgment on numerous occasions, including both his spectacular successes and dismal failures; his sharing with patients that there is no hope, that it is time to die; and his fear of being wrong.

Throughout the book, Marsh rails against the National Health Service and what he perceives as over regulation, irrational regulations, and how things used to be better. These comments in no way take away from the greater significance of his volume, but do provide additional insight into his feelings of loss of authority and his lamenting of how things used to be.

Marsh’s command of the written word, his ability to share his observations, and the many metaphors liberally sprinkled throughout, make for an easy and compelling read. The reader will also gain more than a modicum of medical education. I enjoyed the book and I enjoyed meeting Dr. Marsh. I hope you have a similar experience for this book will do you “no harm,” and perhaps a lot of good.

Dr. Hoffman is a retired clinical psychologist. His e-mail address is: palaherb@gmail.com.

The Transformation of Academic Health Centers

Steven A. Wartman, MD, PhD (AΩA, Johns Hopkins University, 1970), editor

Reviewed by Norman H. Edelman (AΩA, New York University, 1961)

One of the most cherished beliefs in American academic medicine is that our system of integrating education, patient care, research, and community service in university based academic medical centers has proven superior to the often more dispersed arrangements elsewhere. But even cherished beliefs deserve reevaluation. This is an excellent time to do so as it is about one hundred years since the issuance of the Flexner report—which started it all—and because the basic foundations upon which academic medical centers are built may be beginning to crumble.

The Flexner report had two major goals—one was to eliminate the many rather marginal proprietary medical schools, and the other was to establish the university-based, science-oriented teaching hospital that originated in Germany and had been recently introduced into the United States at Johns Hopkins, as a model for medical education. Both goals were achieved, the elimination of the small proprietary schools quite rapidly, the dominance of the university-based academic medical centers more slowly, but eventually quite profoundly. This dominance was greatly facilitated in the post World War II years by the extensive expansion of the National Institutes of Health (NIH) extramural program, the huge influx of clinical dollars generated by the proliferation of both public and private health care insurance, and several decades of strong support for public universities.

As pointed out by many of the contributors in this timely and informative collection of twenty-five essays sponsored by the American Association of Academic Health Centers (AAHC), the keystone upon which the structure of these centers has depended is the ability to cross-subsidize within and between their several missions. The most important of these has been the ability to use funds generated by the practice of medicine—both by hospitals and individuals—to subsidize education, research, and public service. It is the large decline in the availability of this subsidy, as a result of reductions in reimbursements by both public and private payers, that now provides the strongest challenge to academic medical centers. But there are others as well. NIH funding has plateaued, and public support for state universities has been reduced over the past two decades, in some cases severely.

There seems little choice to the contributors of this volume but to learn to adapt to the new environment. To
this end, Dr. Wartman has gathered an impressive array of academic medical center leaders to lay out the problem, describe the steps they have already taken to adapt, and opine on future directions.

The book is roughly organized into three sections: financial considerations, research challenges, and educational changes. The first section was the most informative, perhaps because it is the most compelling. The brief foreword is a candid description of the current state of affairs; no white wash, no platitudes, ending with the conclusion that "we have a dire need to re-engineer our organizations."

The descriptions of the reorganization approaches at Northwestern University and Vanderbilt University, each of which have adopted somewhat differing models of the corporate approach to achieving efficiency, were most informative.

The chapter on market consolidation is especially well done, pointing out to skeptics like me that we are mostly past the time when virtually the only rationale for consolidation was the enhanced negotiating power provided by enlargement of market share. There are now many imperatives to consolidate, and continued movement in that direction seems inevitable.

The chapters on research mostly advise our institutions to tool up in order to follow the new trends in funding exemplified by the large population-based initiatives sponsored by the Patient Centered Outcomes Research Institute. One contributor did advise expansion of university/private sector partnerships as a source of substantial new research funding. However, the potential challenge of such partnerships to the historical role of the university as the site of unrestrained scholarship unencumbered by commercial ties is not discussed here. Nonetheless, there is a separate chapter which does discuss the impact of the current evolution of the academic medical center on its relationship with the mother university. Suffice it to say, the ongoing forces are strongly centrifugal.

The chapters on education tend to manifest the basic conceit of most medical educators—the belief that the educational process can change the delivery system. For example, there is considerable attention given to the virtues of inter-professional education among the various health care professions, but few examples of institutionalized success.

In a somewhat similar vein, there is discussion of the need to teach medical students and residents the principles of population health. This is well meaning but off base. It is hard enough to teach students to be good practitioners, and adding a bit of material on population health to the curriculum won’t make them competent in public health. In this era of the team approach, we need to add professionals adequately trained in public health to the skill mix of modern health care delivery teams and systems, rather than expect undifferentiated physicians to do it all.

The AAHC differentiates itself from the Association of American Medical Colleges by requiring that members train health professionals in addition to physicians. Thus, one omission, although understandable given the magnitude of the task, is a discussion of the other health professionals as distinct entities.

What’s the bottom line? Where are academic medical centers headed? Those already strong and those that are nimble will survive and may even become stronger by adopting efficient corporate management practices and increasing consolidation, perhaps at a price of further estrangement from their parent universities. Many, however, may fall on hard times and have to downsize one or more of their tripartite missions. At this point, research requiring subsidies (that is, all but private sector-supported research) seems to be at greatest risk. In addition, some centers at state universities may be especially vulnerable as policies regarding public employee prerogatives are often at odds with the imperatives of corporate style re-engineering. Thus, it is critical that state policymakers understand the support their medical institutions need to compete effectively in the marketplace.

Perhaps worth mentioning here is an additional dynamic that is challenging the academic medical center model of medical education. This relates to the multitude of new osteopathic and allopathic medical schools that have been, and are being, established. They are a result of the pent-up demand, at least with regard to M.D. degrees, released when the M.D. degree granting establishment lifted its de facto twenty-five-year freeze on nationwide enrollment. One might include the foreign schools training United States nationals in this mix as well. With few exceptions these students do their clinical training in medium-sized community hospitals mainly outside of the academic health center umbrella. Furthermore, partially as a result of an arcane Medicare policy on funding of new residencies, many of these hospitals lack any previous experience in medical education.

Taken together, the trends discussed herein would seem to predict that a considerable number of students who study medicine in the United States will soon do so outside of an environment of scholarship and inquiry.
What would Abraham Flexner say?

Overall, I think that this is a very worthwhile volume and congratulate the AAHC for taking a timely, insightful, and hard look at the present state of academic medical centers. The book should be of interest to all people in academic medicine—even if they are not involved in administration—if only to understand the changes in their own institutions in the context of fast moving national trends. One can only hope it will also be read by a broader audience so that they may understand the profound changes taking place in these essentially unique American and Canadian institutions the public has long held in high esteem.

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The Invention of Nature: Alexander von Humboldt’s New World

Andrea Wulf
Alfred A. Knopf, New York, 2015

Reviewed by Jack Coulehan, MD (AΩA, University of Pittsburgh, 1969)

The Humboldt current, a vast stream of cold water that flows northward along the west coast of South America from southern Chile to northern Peru, supports an exuberant variety of marine life, and is, by far, the most productive ecosystem in the world. In his time, the Prussian naturalist Alexander von Humboldt (1769–1859), who discovered this current, was considered the greatest scientist in the world, though today his name is far from a household word.

A true polymath—botanist, geologist, geographer, explorer, and visionary—von Humboldt shares his name with glaciers, rivers, waterfalls, mountain ranges, parks, and towns scattered throughout the world from Greenland to Tasmania—though his accomplishments remain relatively unknown, at least in the English-speaking world. In fact, Andrea Wulf, the author of The Invention of Nature: Alexander von Humboldt’s New World, makes the extraordinary claim, “more places are named after Humboldt than anyone else.”

Why doesn’t von Humboldt appear among the handful of popularly celebrated nineteenth-century scientists? The chief reason, Wulf suggests, resides in the man’s variety. His contributions range from innovations in the mining industry (e.g., miners’ masks and lamps) to discoveries in volcanism, geomagnetism, botany, ecology, and climatology. However, unlike Charles Darwin and James Clerk Maxwell, whose theories changed the world, the significance of von Humboldt’s “big idea” was not fully appreciated until recently. Although most people now appreciate the importance of his theory, they do not associate it with his name. Wulf intends to remedy this situation by showing that Alexander von Humboldt invented our modern concept of nature.

He was born in 1769 to an army officer father—who died when von Humboldt was a young boy—and a wealthy domineering mother. Always adventurous and nature loving, von Humboldt longed to travel and study natural science, but his mother insisted on a practical education and a “useful” career. After studying finance at university, the young man became an inspector in the Prussian Ministry of Mines. He was responsible for visiting mines throughout Prussia, but carved out time to study geology and search historical documents for evidence of possible ore deposits. When his mother died in 1796, von Humboldt’s inheritance freed him to pursue his chief ambition, a prolonged journey of scientific exploration. After obtaining the best scientific instruments available, in 1799 he and his companion, Aimé Bonpland, set out on a five-year odyssey through the Spanish colonies in South America, Mexico, and Cuba.

Their exploits included climbing Chimborazo, a volcano then thought to be the highest mountain on Earth, where a chasm forced them to turn back at 19,400 feet. No one had ever climbed that high before.

They explored the Orinoco River system, proving that it communicated with the Amazon. South of Quito they discovered the Earth’s magnetic equator. And, of course, they collected thousands of specimens.

On the trip home to Europe in 1804, von Humboldt visited the United States, where he struck up an enduring friendship with President Thomas Jefferson, who had just dispatched Lewis and Clark on their epic journey to the Northwest.

Lionized throughout Europe, von Humboldt settled in...
Paris to begin the process of analyzing his data and writing about his discoveries. Among his first books were Essay on the Geography of Plants, in which he invented the concept of vegetation zones, and Personal Narrative, a description of his travels that later served as a model for Darwin’s Voyage of the Beagle. For more than two decades, von Humboldt remained primarily in Paris and Berlin, refining his theories about what are now called ecology, climatology, and environmental science.

His only other journey of discovery occurred in 1829, when he led a six-month expedition through Siberia.

He died in April 1859 at the age of eighty-nine, several months before one of his greatest admirers published a book called The Origin of Species.

Before von Humboldt’s time, Europeans viewed the natural world from an instrumental perspective. God created plants and animals for man’s use. Wilderness served no useful purpose and was, therefore, to be exploited. Human beings gave meaning to the land by controlling, improving, and cultivating it. However, von Humboldt introduced the idea that nature is “a living whole, not a dead aggregate.” He appreciated the complex interaction of flora and fauna as a natural system that existed for its own sake, without reference to humanity. As Wulf explains:

Humboldt revolutionized the way we see the natural world. He found connections everywhere. “In this great chain of causes and effects,” Humboldt said, “no single fact can be considered in isolation.” With this insight, he invented the web of life, the concept of nature as we know it today.⁶⁵

His systematic observations led him to develop the modern concepts of isotherms, plant geography, ecological systems, vegetation zones, and climate change, the latter of which is of particular importance today. He was the first to demonstrate the destructive effects of human activity on climate. He studied deforestation in Venezuela, showing that it led to soil erosion and crop reduction. He argued that forests enrich the atmosphere with moisture and freshen the air (without, of course, understanding the roles of oxygen and carbon dioxide). He predicted that man’s manipulation of the environment might someday lead to soil erosion and crop reduction. He argued that deforestation led to soil erosion and crop reduction. He predicted that man’s manipulation of the environment might someday lead to deleterious global climate change.

These ideas were originally expressed in Views of Nature, “a scientific book unembarrassed by lyricism.”⁶⁶ In later life, von Humboldt published Cosmos, an immense five-volume work that presented a comprehensive survey of natural history, starting with the origin of the universe. He was the first naturalist to target a general audience in his books, rather than solely writing for fellow scientists.

His works strongly influenced a wide range of major figures, for example, Simon Bolivar embraced the unitary conception of land and nature when developing a revolutionary ethos for South American independence. Darwin studied and annotated von Humboldt’s Personal Narrative throughout his journey on HMS Beagle. Henry David Thoreau incorporated ideas he found in Cosmos and Views of Nature into his own philosophy. John Muir brought von Humboldt’s environmental ideas to fruition.

Two final points about Wulf’s excellent biography. First, von Humboldt’s sexuality. He never married, and his life was characterized by a series of intense male relationships, beginning with his colleague, Aimé Bonpland. His letters to these men certainly suggest sexual intimacy. However, in the long run, curiosity about a historical figure’s sexual practices seems pointless. The much more important issue is von Humboldt’s strong and consistent opposition to slavery. In his books on the Americas, he dedicated sections to describing the conditions of slaves and indigenous people. He often expressed disgust for the inhumane conditions in which indigenous people and others were treated. In fact, abolition of slavery was the one issue upon which von Humboldt and Jefferson disagreed.

Reading The Invention of Nature left me with a sense of satisfaction. It’s not often that a book introduces you to a fascinating character so little understood, yet so influential in creating today’s view of the world.

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Jonas Salk: A Life
Charlotte DeCroes Jacobs
Oxford University Press, 2015

Reviewed by Elaine Thomas, MD

The paralyzing disease poliomyelitis terrified Americans in the 1950s, and Dr. Jonas Salk was cast as their savior when he created a successful vaccine.
This son of Jewish immigrants was a junior scientist when he pushed his way into the company of polio researchers. His inactivated-virus vaccine was based on relentless laboratory work rather than an innovative idea. He collaborated with the private National Foundation for Infantile Paralysis as well as pharmaceutical companies, earning the disdain of traditional academics.

A working committee of scientists and funders argued about his study design in ways echoed in recent projects such as HIV vaccine trials. The group limited Salk’s contribution to the design of the 1954 randomized trial of his vaccine, but the popular press regarded him as the trial’s leader. In one of the largest interventional studies ever conducted, mountains of data were collected on punch cards and fed into primitive computers. The public clamored to participate, in contrast to today’s suspicion of research and vaccines.

When the trial was successful, Salk became an overnight media star, giving television interviews and writing articles for popular magazines. This brought scorn from his fellow scientists, while his office was swamped with letters and gifts from the grateful public.

Salk’s rivalry with Dr. Albert Sabin, the physician who championed a live-virus vaccine, was professional, personal, and hyped by the media. During scale-up of Salk’s inactivated vaccine production, the Cutter Company produced batches that inadvertently contained live virus and infected a number of children. Historians refer to this as “the Cutter incident.” Sabin called it “the Salk incident.”

Only forty years old at the time of the trial, Salk struggled for the rest of his life to maintain relevance and self-esteem in the research world. He remained a public hero without gaining the scientific accolades he craved. Evidence conflicts as to whether Salk was a self-promoting publicity hound or a modest, dedicated humanitarian—or a bit of both.

In the 1960s and 1970s, Salk indulged his lifelong interest in metabiology, a vague exploration of science as a path to higher consciousness, human unity, and care for the planet, asking, “Are we being good ancestors?” Also during this time, to free scientists from the constraints of universities and funders, he created the Salk Institute, although his poor administrative skills almost sank it. The Salk Institute, now a respected research center, never supported his goal of metabiologic research, and eventually pushed him out as director.

Author Charlotte Jacobs, a professor of medicine at Stanford University, meticulously researched this biography, with interviews of people who knew Salk and other key figures.

She explores Salk’s personality through his correspondence, insomniac journal musings, and somewhat sad love life. Her style is engaging for medical and lay readers alike.

Jacobs does not cover some parts of the Salk story, such as the reasons his late-life attempt at a therapeutic HIV vaccine failed; or the 1950s FBI investigation of Salk, which could have shut down his work if they had found incriminating communist activities. And little is said of the ironic endgame: years after Sabin’s live vaccine displaced Salk’s, and after Salk’s death, the United States has returned to inactivated vaccine for safety (although live vaccine is still preferred in the developing world because it contributes to herd immunity).

Thanks to these competing researchers and thousands of others, a deadly disease is now close to extinction.

For the story of polio vaccine in its cultural context, a shorter and very readable book is Polio: An American Story, by David Oshinsky. However, Jonas Salk: A Life is worth reading for those considering a career in science or medicine for the questions it raises: How does personality affect our successes? Why did Salk, rather than others, become a popular hero, and why wasn’t he respected in the research establishment? How do social context and pure chance shape careers? How does an early success shape—or derail—a career, and how can a successful scientist avoid being trapped by the notoriety of earlier achievements?

Many of Salk’s actions—bending university rules, pushing for early uncontrolled clinical trials, allowing private funders to influence research designs—would have made him a pariah if the vaccine trial hadn’t succeeded. However, such gambles are common in the scientific world. How does an aspiring researcher (or clinician or entrepreneur) decide when to play by the rules and when for fight for a new idea?

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Jeremy Baran (2010 Uniformed Services University)

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<th>Name</th>
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<td>Jacob J. Barie</td>
<td>1965 Albert Einstein College of Medicine of Yeshiva University</td>
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<td>Peter Barland</td>
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<td>1971 Harvard Medical School</td>
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<td>1985 Louisiana State University School of Medicine in New Orleans</td>
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<td>Arthur F. Dalley</td>
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<td>Carolyn B. Daul</td>
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<td>Lloyd A. Darves</td>
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<td>Peter R. DeMarco</td>
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<td>Robert C. Dean</td>
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<td>1981 University of Minnesota</td>
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<td>Joseph B. Delcarpio</td>
<td>2005 Louisiana State University School of Medicine in New Orleans</td>
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<td>Mayo R. Delilly</td>
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<td>George Dermksian</td>
<td>1954 Weill Cornell Medical College</td>
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<td>Sabrina Fraser Derrington</td>
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<td>Ernest E. Deshautreau</td>
<td>1953 Tulane University</td>
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<td>John Diorio</td>
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<td>Carol R. DiRaimondo</td>
<td>1980 Vanderbilt University</td>
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<tr>
<td>Dale Distant</td>
<td>1992 State University of New York, Downstate Medical Center</td>
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<tr>
<td>Dayna Gwinup Diven</td>
<td>1985 University of Texas Medical Branch</td>
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<td>Cathleen Doane-Wilson</td>
<td>1980 University of Vermont</td>
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<td>Karen B. Domino</td>
<td>1978 University of Michigan</td>
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<td>Kimrie M. Donovan</td>
<td>1993 Case Western Reserve University</td>
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<td>William Droegemueller</td>
<td>1959 University of Colorado</td>
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<td>Diane Marie Drugas</td>
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<td>Thomas E. Duncan</td>
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<td>George D. Edwards</td>
<td>1976 Louisiana State University Health Sciences Center Shreveport</td>
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<tr>
<td>Arnold H. Einhorn</td>
<td>1975 Albert Einstein College of Medicine of Yeshiva University</td>
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</table>
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<tr>
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<th>Institution and Years</th>
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<td>Joseph Sidikaro</td>
<td>(1977 University of Texas Medical School at Houston)</td>
</tr>
<tr>
<td>Brett H. Siegfried</td>
<td>(1998 University of Pittsburgh)</td>
</tr>
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</tr>
<tr>
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<tr>
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Ill, Us

Irritants of love, living in the sift
of a beloved person: nothing
against the growing numbness
in my body. Things float
across my line of sight.

I am too tired in the evening
to speak, let alone to be the woman
you want. I catch the musk
and the fullness of you,
and then beneath it, my own
sweetish smell of illness. I wonder if I did this
to myself. I wonder if I broke,
aching so deeply.
I lost feeling in my mouth
and my arm
for an hour: what I mourned
was kissing
you, my hand
on your cheek.

Antonina Palisano

Antonina Palisano holds an MFA in poetry from Boston University. Her work has appeared in The Massachusetts Review, Washington Square Review, Bellevue Literary Review, and other publications, including the World to Come collection produced for Jewish Currents’ Raynes Poetry Prize. Her poem For H was recently selected by Tracy K. Smith for the Best New Poets 2015 anthology. She has taught creative writing at the high school and college levels, and lives in Medford, Massachusetts. Illustration by Erica Aitken. © Photo Edvard March/Corbis