

# The Development of Professionalism: Curriculum Matters

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## ABSTRACT

The authors propose that professionalism, rather than being left to the chance that students will model themselves on ideal physicians or somehow be permeable to other elements of professionalism, is fostered by students' engagement with significant, integrated experiences with certain kinds of content. Like clinical reasoning, which cannot occur in a vacuum but must be built on particular knowledge, methods, and the development of skills, professionalism cannot flourish without its necessary basis of knowledge, methods, and skills. The authors present the need for an intellectual widening of the medical curriculum, so that students acquire not only the necessary tools of scientific and clinical knowledge, methods, and skills but also other relevant tools for professional development that can be provided only by particular knowledge, methods, and skills outside bioscience domains.

Medical students have little opportunity to engage any body of knowledge not gained through bioscientific/empirical methods. Yet other bodies of knowledge—philosophy, sociology, literature, spirituality, and aesthetics—are often the ones where compassion, communication, and social responsibility are addressed, illuminated, practiced, and learned. To educate broadly educated physicians who develop professionalism throughout their education and their careers requires a full-spectrum curriculum and the processes to support it. The authors sketch the ways in which admission, the curriculum (particularly promoting a sociologic consciousness, interdisciplinary thinking, and understanding of the economic/political dimensions of health care), and assessment and licensure would function.

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A corrective against complacency, against the closing off of certain questions as settled—and that is, after all, what any honest approach to education requires.—NICHOLAS BURBULES<sup>1</sup>

Professionalism and professional development are priorities in medical education at all levels. The topics appear often on conference programs and in medical journals. Most U.S. schools now have professional development committees, programs, or ceremonies. Jordan Cohen, president of the Association of American Medical Colleges (AAMC), announces it to all medical educators in

the AAMC's 1998 Annual Report when he urges them to "cultivate the core values of professionalism in future practitioners. . . [and] stand firmly in support of the values that make our profession 'honored and honorable.'"<sup>2</sup>

That said, however, it is not clear that the schools have thought through what is needed to do the job properly. After sifting, sorting, and remixing the existing literature, we conclude that some of the assumptions fueling the current professionalism discourse should be reconceptualized if this particular "round" of such calls is going to make a difference in the education of physicians. For 50 years the professionalism literature has sounded uncannily the same: medical education places too great an emphasis on the biological/technical aspects of medicine at the expense of the psychosocial; humanistic qualities (call it caring, empathy, humility, compassion, sensitivity, and so on) have taken a back seat; some kind of curriculum intervention should take place to reinforce the humanistic values associated with the profession. Quoting from the widely-acclaimed GPEP Report (the AAMC's 1984 Project on the General Professional Educa-

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tion of the Physician and College Preparation for Medicine), sociologist Renée Fox reminds us that this hand-wringing has been around for some time: "A review of past efforts to modify medical education reveals that most of the problems . . . are not new. Institutions intermittently have changed their curricula, but unfortunately little progress has been made toward a fundamental reappraisal of how physicians are educated. Thus, we do not claim novelty in the discovery of deficiencies."<sup>3</sup> Since the 1950s medical educators have addressed such deficiencies by injecting what Fox calls "magic bullets" into the curriculum as they search for the best way to promote professionalism in medicine. For the most part, Fox argues, these "rediscovered principles and qualities of good physicianhood" are what we can assume the AAMC's Jordan Cohen means when he calls for renewed attention to the "values that make [medicine] 'honored and honorable.'"

The current focus on professional development often begins with how best to instill or encourage the following six elements of professionalism: altruism, accountability, excellence, duty, honor and integrity, and respect for others.<sup>4</sup> Unfortunately, the term professional development is losing whatever precision it had, so that now it may also refer to CME, faculty development, career planning, or even seminars in CV construction or how to get published. In this paper, however, we use the term very specifically to denote the development of professionalism in medical trainees—an ongoing, self-reflective *process* involving habits of thinking, feeling, and acting. We propose that professionalism, rather than being left to the chance that students will model themselves on ideal physicians or somehow be permeable to these or other elements of professionalism, is fostered in significant measure by students' engagement with certain kinds of *content*. Like clinical reasoning, which cannot occur in a vacuum but must be built on particular knowledge, methods, and the development of skills, professionalism cannot flourish without its necessary basis of knowledge, methods, and skills. The content associated with developing professionalism is interdisciplinary and open-ended, and yields as many questions as answers. It includes but is not limited to the philosophy and history of medicine (*Who are we? How did we arrive in this location? Why do we practice this way?*); the sociology of medical knowledge (*Which disciplines and methods does medicine draw from, and which ones are ignored? What are the strengths and weaknesses of these disciplines and methods?*); political, economic, and social inquiry surrounding medical practice (*Who do we serve? Who is left out? Who decided this was the way medicine would be enacted in this country?*); or literary inquiry (*What does it feel like to be sick? What does it feel like to be a tired, burned-out doctor?*). Through this interdisciplinary content and methods of inquiry appropriate to it, medical students and residents can learn to think criti-

cally about themselves and their profession, recognize the strengths and limits of scientific knowledge, realize and act on the humanistic dimensions of medical practice, and integrate their social responsibilities as physicians into the context of their personal goals.

The development of professionalism so conceived is not fostered by lists of abstract qualities, end-of-term checklists, or virtue checkpoints throughout the curriculum. Medical educators cannot assume that students develop professionally at the same pace as they move through the curriculum, or that professional development just naturally happens, like physical maturity. No faculty member would make such an assumption about clinical reasoning, for example. In fact, for professionalism to flourish, students need a broader intellectual experience than those provided by traditional medical curricula. Medical education has traditionally placed the highest value on scientific (rationalist) knowledge, which may have little to do with the critical thinking about oneself, the medical profession, and society, all of which are basic to professional development. We propose an intellectual widening of the medical curriculum, so that students acquire not only the necessary tools of scientific and clinical knowledge, methods, and skills but also other relevant tools for professional development that are provided by particular knowledge, methods, and skills outside bioscience domains. So endowed, students would be able to choose from multiple tools, each relevant to the unique complexities of clinical encounters with patients. That is, students need tools not only to address the pathophysiology of an illness itself but also to deal astutely with language and communication, knowledgeably with biases in decision making (their own and their patients'), politically with how services are accessed, ethically with moral ambiguities in medicine, and empathically with the experience of illness across differences in race, gender, and class.

But for students to become this adept and flexible in using these multiple tools, our curriculum must reflect knowledge and skills that arise from interdisciplinary content and methods—knowledge that is often provisional, context-specific, and contingent, and sometimes contradictory. When the development of professionalism is conceived in this way throughout the curriculum, across disciplines and methods, students can embrace professionalism as a vital, continuous process made visible by their own unique enactment of *compassionate, communicative, and socially responsible physicianhood in the context of full, satisfying lives outside medicine*. In our approach, as presented here, we see the development of professionalism as growing from within these habits of thought and action, and we remain skeptical that there are any universal behaviors that can be listed as the checklist manifestations of such habits.

Moreover, when the focus shifts to the formal curriculum

(and the hidden curriculum that parallels it), the development of professionalism has different curricular implications, with different assumptions, about how to move students from here to there. It invariably asks us to examine the curriculum in light of the following questions: What is the nature of the knowledge that all students, regardless of their career goals, are expected to learn in medical education, and what values are embedded in this knowledge? How does this knowledge relate to compassionate, communicative, and socially responsible doctoring? If it does not, what knowledge is associated with these habits, and where and how should this knowledge appear in the medical curriculum?

To answer these questions, we first look at the existing plunge into knowledge that students take upon arrival in medical school. Next, we examine the curriculum, noting the limitations of staying immersed in only one orientation toward knowledge. Finally, we propose a broad, multi-orientation approach and describe how it can be developed and supported in the medical curriculum so that the development of professionalism can flourish.

#### THE EXISTING ASSUMPTION: MEDICAL KNOWLEDGE = SCIENCE

[A] more detailed awareness by medical faculty of how the concepts, terminology, and methods of biomedicine are imprinted with dichotomies . . . could provide them with new recognition of . . . where they are inadvertently teaching medical students and house staff to split competence from caring.  
—RENÉE FOX<sup>3</sup>

On one level, the way a person lives a professional life and deals with other people in that professional role can be traced beyond the carefully acquired specialized knowledge and skills to the deepest assumptions undergirding the profession. At the heart of all professions are specialized knowledge and assumptions about that knowledge. In medicine, inductees are taught that the content and methods of science are essential to “knowing” in medicine—that is, they are the foundation of clinical reasoning and understanding of disease. The very depth and breadth of this knowledge sets doctors apart from other health care providers.

Indeed, medical students’ initiation into medicine—a baptism by fire even for the heartiest science major—is first engineered by basic scientists whose orientation to the nature of knowledge many students are already quite comfortable with and thus can adopt without difficulty. In lecture halls and labs throughout United States, medical education, “real knowledge”—scientific—is gained through rational inquiry that is characterized by objectivity, universality, and replicability. Even though individuality and subjectivity have much to do with the experience of illness, as students will later learn, these qualities have no place in the making

of scientific knowledge as taught in these lectures and labs. Studying the human body mechanistically in terms of form and function, learning human universals rather than human idiosyncracies, thinking in paradigms rather than narratives: all these become a successful medical student’s routine habits of thinking. Sculpting its initiates into a specific epistemologic template is not unique to medicine, of course: lawyers are trained to “think like a lawyer,” engineers like an engineer, the clergy to think doctrinally.

What are the origins of contemporary Western notions of “thinking like a doctor”? Much of it has to do with the intellectual ideals of the modern world as they have developed over the past 200–300 years. These ideals emphasize empirical appraisal of the universe through rational inquiry and natural experience, and their application is seen everywhere from science to representative government. Of the health care professions, none has exhibited more allegiance to the rational (i.e. reasoned, objective, distanced) inquiry associated with science than medicine. We are quick to point out that this mode of thinking, enacted in clinical research and clinical reasoning, has afforded millions of people better health, quicker recoveries, and longer lives. As C. P. Snow pointed out in his famous “Two Cultures” lecture, some people think of the scientific edifice, “in its intellectual depth, complexity, and articulation, the most beautiful and wonderful collective work of the mind of man.”<sup>5</sup>

But what does this admittedly elegant and enormously useful mode of rationalist thinking have to do with educating doctors to be compassionate, communicative, and socially responsible?

Rationalist thinking, which includes scientific thinking, is a powerful tool. Yet it actually represents only one piece in the larger professional development puzzle, one tool in a larger toolbox of successful physicianhood. To ask students to develop compassion, communication skills, and social responsibility within the confines of a biomedical discourse is unrealistic, if not unfair, given the evaluative criteria of success and competency in contemporary medical education. In fact, the beliefs students develop about the nature of medical practice (beliefs ultimately put into action at the bedside, with other health care professionals, and in the community) can be stunted by “staying put” in scientific ways of knowing. For example, developing professionalism can be obstructed when objectivity, replicability, and generalizability become essential criteria for studying all medical phenomena. Moreover, students’ initial immersion in science is so consuming and extended that they begin to think that what they’re learning—*bioscientific* knowledge and how it is made—is the same as *medical* knowledge and how it is/should be made. These assumptions influence students’ subsequent beliefs about what knowledge is of the most worth and—most basic—what counts as “knowledge.”

Students, then, look to science and its methods of making knowledge as key to unlocking *all* the secrets of the body—how it works, how it is maintained, how it breaks down, and how it is fixed (the mechanical metaphor is deliberate)—but also the key to their relationships with patients and other health care providers. These beliefs are pernicious, leaking into areas of medicine for which understandings and appreciations may be far better served through other domains of knowledge, other modes of inquiry, other sources of understanding. This observation, we state emphatically, is not a critique of science and its methods. Quite the contrary. Walker Percy, physician and novelist, a passionate believer and admirer of science and its methods, understood this even as he recognized its limits:

I never turned my back on science. It would be a mistake to do so—throw out the baby with the bath water. I had wanted to find answers through an application of the scientific method. I had found that method a rather impressive and beautiful thing: the logic and precision of systematic inquiry; the mind's impressive ability to be clear-headed, to reason. But I gradually began to realize that as a scientist—a doctor, a pathologist—I knew very much *about* man, but had little idea of what man *is*.<sup>6</sup>

Yet, medical students have little opportunity to engage in and puzzle over any body of knowledge that is not gained through bioscientific/empirical methods. That is, the content and methods of science are so normalized that students easily fall into a comfortable but patently untrue pattern of thought wherein everything not derived from that method is soft, anecdotal, closer to myth, conjecture, or speculation, perhaps potentially useful but not “knowledge.” Yet these—philosophy, sociology, literature, spirituality, and aesthetics—are often the very content areas where compassion, communication, and social responsibility are addressed, illuminated, practiced, and learned.

Moreover—and paradoxically—students come to see *scientific* language as an unproblematic medium for transmitting observations and theories, but see *patients'* language as inadequate or inaccurate because of its obvious subjectivity. Indeed, although medical educators give the doctor–patient relationship much attention (and therefore validation) during the clinical years, the theories and methods used to understand that relationship are not in the domain of “scientific” knowledge as medical students are led to view knowledge. Naturally, therefore, the doctor–patient relationship is the wrapping on the box containing clinical knowledge, the garnish beside the real food, the accessory that makes the outfit complete, not a vital core of medical knowledge. Embedded in their world view are, of course, centuries-old dualisms—objectivity/subjectivity, reason/emotion, body/mind, clinical expertise/bedside manner, and a whole host of either/or pairs

—that are taken for granted not only in medical training but in the culture at large. Moreover, Fox maintains,

seen in cross-cultural perspective, the dualism of our medical thinking and our difficulties in breaking through it are distinctively and rather oddly Western. In non-Western societies and medical systems whose world views are more holistic than our own, there is no need for special fields, meetings, lectures, courses, and rhetoric to “remind” and teach medical students and practitioners that human beings have bodies and minds, and minds and brains that are dynamically interrelated; that ideally, the prevention, diagnosis, and treatment of illness should be approached in a “biopsychosocial” framework; that medicine is “both a science and an art”—to use some of the clumsy, aphoristic phrases that we have coined in this connection.<sup>3</sup>

When medical students are taught, explicitly and implicitly, that the only true medical knowledge comes from empirical, objective, quantitative inquiry, they naturally distrust all knowledge that is gained from other methods. Factors such as gender, race, education, social class, ethnic identity, the political climate are often viewed as outside or secondary to “proper” medical knowledge, the assumption being that both the product and the process of making “proper” medical knowledge exist independently of these factors. This is why medical students move from their preclinical to their clinical education believing that the process scientists strive for called “objectivity”—a place in the human mind where all these other subjective factors can be held at bay, never leaking into the thought process—is also appropriate, even achievable for clinicians. This is a place, they learn, where they should “go” when they're involved in clinical reasoning, and what emerges from this fictional place, supposedly without human biases and values, is not only a diagnosis but a set of behaviors characterized by clinical distance and a medical record that represents the true story of a patient's illness. We are successful in getting this message to students. Their belief that clinical objectivity is attainable is so sincere that they truly believe that they treat all their patients equally regardless of who those patients are—not that they *strive* to but that they actually *do*.

Do any of us believe this? Of course not. Any experienced practicing physician knows better. We are reminded of Abraham Verghese's account of this delusional belief, one that can be traced directly to the values embedded in an approach that recognizes only objectivity and rationality as medical knowledge:

A doctor I had trained in Johnson City, a native of the area, set up his shingle in a neighboring community. I sent him one of my AIDS patients who lived in his town. My thought was that the patient could get his routine blood work and simple follow-up with this doctor without driving all the way

out to see me. The doctor said to the patient, "I don't approve of your lifestyle and what it represents. It is ungodly in my view. But that doesn't mean I won't continue to take good care of you. . . . To which the patient replied, "Oh yes it does!"<sup>7</sup>

#### MANIFESTATIONS OF BIOSCIENCE = KNOWLEDGE IN THE CURRICULUM

Many of the messages transmitted via the hidden curriculum may be in direct conflict with what is being touted in formal courses on medical ethics or with what are formally heralded by the institution as desirable standards of ethical conduct.—  
HAFFERTY and FRANKS<sup>8</sup>

How does the medical curriculum continue to reinforce the belief that scientific knowledge is at the top of the hierarchy in medicine, that objectivity as a location and process is attainable for students, that the "subjective" part of doctoring is important but is secondary to its objective essence? Why do students complete medical education conflating bioscience and medical practice, which are two related but distinctly different activities? Why does the medical curriculum put so few tools in the caregiving toolbox, and those few focusing almost exclusively on the biological individual, when it is increasingly clear to patients, to medical institutions, to the profession that other tools are necessary? That is, the biological individual exists not in a lab or bubble but in a social matrix infused with subjective, context-specific, culturally bound dimensions. Why does the medical curriculum ignore the skills of cultural, economic, and political analysis? Why does the medical curriculum fail to provide a content, a knowledge base for the development of compassionate, communicative, and socially responsive doctoring, and yet continue to evaluate students for evidence of such development?

This is not to suggest that the medical curriculum has failed to respond to the importance of the subjective dimensions of medicine. Most medical curricula include all or some of the following: the behavioral and social sciences, bioethics and medical humanities, problem-based learning, and cultural competency. Yet with few exceptions, these curricula often remain philosophically attached to logico-rational approaches to knowledge that value objectivity, prediction, and control. This is reflected even in places where one would least expect it: in a behavioral sciences curriculum emphasizing only psychopathologies and stage theories of human growth and development; in patient interviewing that resembles a script and fails to address the implications of power differentials between doctors and patients based on gender, race, and class; in a bioethics curriculum that remains tied exclusively to analytic philosophy and principle-based theorizing; in a PBL curriculum that attaches psychosocial issues

as add-ons after the "real" learning has been achieved; or even in a literature and medicine class that equates "close readings" of a literary text with "close readings" of the patient. As Hafferty and Franks note, if students are "surrounded by a medical culture that discourages certain feelings, introspection, or personal reflection, and buffered by a basic science curriculum that emphasizes rote memorization, medical students may come to embrace such a reflexive myopia quite early in the training process."<sup>8</sup>

Moreover, the existing medical curriculum, aligned as it is almost exclusively with science and its methods, results in doctors, not patients, who are the real "knowers." Patients' knowledge is often doomed to the same category as the dreaded "anecdote": interesting, memorable, the stuff of good medical stories, but not knowledge. Their accounts of being ill, the conditions of their lives outside the medical office, what illness means in their lives—all critical to compassionate, communicative, and socially responsive caregiving—are not granted the same status as test results, lab values, the doctor's authoritative store of clinical knowledge, or the diagnosis itself. But lacking the tools to move back and forth between and among different kinds of knowledge, most medical students do not view patients' narratives as yielding knowledge valid enough for the medical record, even though it may be the source of a patient's suffering. This attitude is inherently dismissive, as well as bad doctoring. As Arthur Frank notes in his study of illness narratives written by patients,

The *modern* experience of illness begins when popular experience is overtaken by technical expertise, including complex organizations of treatment. Folk no longer go to bed and die, cared for by family members and neighbors who have a talent for healing. Folk now go to paid professionals who reinterpret their pains as symptoms, using a specialized language that is unfamiliar and overwhelming. As patients, these folk accumulate entries on medical charts which in most instances they are neither able nor allowed to read; the chart becomes the official story of the illness. Other stories proliferate. Ill people tell family and friends versions of what the doctor said, and these others reply by telling experiences that seem to be similar: both experiences they have had themselves and ones heard from others. Illness becomes a circulation of stories, professional and lay, but not all stories are equal.<sup>9</sup>

Thus, patients' stories do not fit within doctors' knowledge template in both content (they are subjective, personal) and method (they are not generalizable).

In addition, most medical curricula do not promote adequate understanding of the social, economic, and often messy political climates of health care systems and how such factors will directly influence the ways trainees will perform their life's work. Certainly students have *opinions* on such

matters, arising from their own values and from their socialization into the profession, but the overstuffed, overly determined curriculum has little space for the systematic examination of these issues. Yet despite the lack of curricula and the overwhelming emphasis on bioscience, faculty expect students to exhibit in social, economic, and political environments certain professional values of which they do not have the slightest critical understanding. This opens the door for cynicism and resignation among students before they even begin their careers.

Finally, and related to the previous three phenomena, medical education encourages thinking in borders and partitions between ways of knowing, areas of specialization, and divisions of labor in medicine. It promotes premature sifting and sorting of students into different tracks, with this medical school prodding toward primary care, that medical school toward careers in research or academic medicine. Rather than a well-crafted, four-year experience where the skills, attitudes, and values relevant to undifferentiated physicians are developed and encouraged, most medical curricula are focused on differentiation and hierarchies of knowledge, on clearly defined spheres of practice, and on controlled distinctions among medical specialties. An integrated educational program where the clinical and basic sciences are connected to patients' knowledge, values, and needs; to knowledge produced outside science and medicine; and to community needs and values—this is all but impossible within the traditional parameters of long-standing jurisdictions and agendas. Moreover, current configurations of graduate medical education require students to consider areas of specialization far too early in the curriculum. Some students, for example, anxiously spend time in research, fellowships, electives, and pre-internships even before they spend a significant amount of time in a particular specialty, fearing that otherwise they will not be competitive. And because of the intense competition for particular specialties (with some residency programs screening by class rank, board scores, or AOA membership), students rely intensively on achievement and making their marks in these narrow areas rather than benefitting from a more comprehensive, general education.

The cumulative effect of these manifestations of bioscience = knowledge are so woven into the heart of modern medical education that it is hard for anyone enmeshed in the process to step back and look at the consequences and then think about what medical education and medical practice would look like and feel like if opened up to the properly broad areas of knowing that doctors need and patients deserve.

#### THE FULL-SPECTRUM CURRICULUM: A UTOPIAN PROPOSAL

In a full-spectrum curriculum, doctors would learn the kinds of knowledge they need, not just bioscience with a smatter-

ing of other, often ill-incorporated information added as afterthought. Medical education would reflect the orientation toward knowledge we propose. In the more perfectly created academic world in which such a curriculum is embedded, changes would spill over into admission, licensure, and virtually all systems of assessment and rewards for both students and faculty. Each change we propose would result in a broader, more flexible knowledge base, one that provides students with tools to match their increasingly complex work. Below is the general, admittedly utopian outline of what is needed to produce an environment geared toward educating not neophyte family doctors or surgeons but broadly educated physicians who develop professionalism throughout their education and their careers.

#### Admission

MCATs would be either eliminated or dramatically changed to reflect an applicant's adeptness with knowledge across multiple domains. Undergraduate GPAs would remain a major factor but would be one among other weighted measures. For example, admission committees would recognize that the so-called average MCAT score or GPA of a student who had worked his or her way through college (or had a child) and was involved in many extracurricular activities might be the mark of a more appropriate candidate than the stellar MCAT score of a student who was totally supported by parents, had done little other than study, and had taken an expensive review course. We are reminded of Lewis Thomas's wonderfully wry essay, "How to Fix the Premedical Curriculum," where he suggests that "more attention should be paid to the success of students in other, nonscience disciplines before they are admitted, in order to assure the scope of intellect needed for a physician's work."<sup>10</sup> Applicants' reports of so-called shadowing experiences would not count, but significant time spent working or volunteering in hospitals, clinics, or community-based agencies or services would. These participatory experiences would be further evidence that such students might be more likely to recognize the importance of context in the lives of patients, and to think more comprehensively in terms of where health care is provided and who is involved. Recommendations from college professors would not count too much (we already know the applicants are smart and serious students), but letters from work or volunteer supervisors would. Admission committees would include not only faculty but other health care professionals, fellow students, and community members who have a stake in the kind of doctors we give back to our communities.

#### The Medical Curriculum

We have several recommendations for the medical curriculum that place the development of professionalism at the

forefront of its mission. Each involves widening students' skills in moving between and using different kinds of knowledge, ensuring that their toolbox that carries more than the knowledge and skills of basic and clinical sciences. These additional tools include a sociologic imagination, borrowing heavily from Peter Berger's still classic work, *Invitation to Sociology*<sup>11</sup>; an interdisciplinary perspective; and a political/economic sophistication in matters concerning health care policy. Brief sketches show why these tools will be useful, and how and where they might appear in the medical curriculum.

**A sociologic consciousness.** In the four-year medical curriculum, inquiry into knowledge would be embedded in a blend of traditional lecture, lab, discussion, and problem-based and independent learning—in other words, in the same formats used elsewhere in the curriculum. During the first year students would be required to take a philosophy of science or sociology of knowledge course that promotes (1) a critical approach to knowledge, (2) an enlarged conception of what it means to “know,” and (3) an appreciation of the conceptual elegance and truths of science tempered by skepticism for any claims to pure objectivity or rationality. Such a course might be grounded in Berger's sociologic consciousness, one that gives knowers the ability to “see through” social structures, taken-for-granted knowledge and methods, and institutional practices so that none of these moves to a level beyond critical scrutiny.

A sociologic consciousness, according to Berger, requires rigorous intellectual skills. In the first-year medical curriculum, students would learn skills to unmask or divulge the social systems of which they are increasingly becoming a part, including medical training, medical practices, and medical institutions. If these skills are learned early and practiced often, perhaps students would gain a kind of intellectual inoculation to the *negative* dimensions of medical socialization before these dimensions become normalized. Questions they would learn to ask, aimed at medical practices and traditions that usually remain outside students' critical scrutiny, might include: *Why are two years of basic science deemed necessary in the education of doctors? Who decided? How do we know it is the best way to learn the scientific basis of medical practice? What are the ways to test this assumption? Or, Who marked out spheres of practice in medicine? Who decided that doctors (nurses/midwives/physician assistants/etc.) do this but not that? Who benefits from this arrangement? What would happen if these practice patterns changed? How do we know this would happen? Or, What is the relationship between level of education and power? Between level of education and money? What are the medical implications of these relationships?*

A second skill of sociologic consciousness is how medical students learn to position themselves with regard to “respectable” and “unrespectable” sectors of society. According to

Berger, it is one thing to work towards strengthening one's affiliations with respectable sectors of one's profession and community. There is strength in speaking in the same language, having similar values and goals, interpreting the world in similar ways. But learning to relate to individuals and communities of “disenchanted attitudes” would provide an understanding of the world that would not be possible by staying put in safe, harmonious professional relations. Developing these affinities in medical students would involve having them learn from persons at the least powerful ends of both giving and receiving care. What do most medical students know about the work of aides or home health care providers? What might be learned from these caregivers' knowledge? What do most medical students learn about the health care of indigent persons—from *their* perspectives? How much do medical students learn from uninsured “house” patients about the social conditions—poverty, inadequate housing, chronic unemployment, stress, and low self-esteem—that often bring them to teaching hospitals? What could be learned from their knowledge? Susan Sherwin provides a provocative example of how medical professionals assume to “know best” for all people even as we are oblivious to the conditions of others' lives. Consider, she asks, the issue of informed consent. Most medical professionals, especially doctors,

are accustomed to being treated with dignity and respect and having control over matters concerning their own lives and well-being. . . . From the perspective of less privileged health care consumers who normally have little control over their lives, however, maintaining control when ill may not be of paramount concern, since control is not theirs to lose. Patients who are not used to being cared for or respected in the rest of their lives may have a different ordering of values and different priorities in their dealings with health professionals than do those who now occupy center stage in the bioethics arena.<sup>12</sup>

Several medical schools have addressed such concerns directly (and early) in the curriculum: in Philadelphia's “Bridging the Gaps” program, where health internships are provided to medical students and other health care trainees in underserved communities; at Rush Medical School's Community Service Initiatives Program, where medical students voluntarily serve the poor and disadvantaged; or through the “Health, Illness and the Community” course at the University of Toronto, which provides students with community learning experiences in 300 community agencies as learning sites. In a full-spectrum curriculum, students would find these required learning experiences woven throughout the four years.

A third skill of sociologic consciousness has to do with what Berger calls developing a “mobile mind” toward mul-

multiple human values and orientations. A mobile mind contrasts with those that are held stationary by rigid scientific/medical ways of thinking, such as *How could someone that young not want heroic measures? How could someone really believe in alternative healing? Why would anyone interested in safety want a home birth?* Because medical students are relatively immobile in their learning environments, their minds may become immobile too. Tuton, Siegel, and Campbell describe this ironic phenomena: “We have come to realize that though many academic health centers lie within or near economically deprived neighborhoods, their presence has had limited effect in changing the awful realities that influence community life and health.”<sup>13</sup> And as Susan Sherwin reminds us,

Homogeneity among participants in debates has consequences in any field. One important effect is that it allows most practitioners to remain oblivious to the significance of their own location and perspective for their work. As in other disciplines that are dominated by a well-educated, white, male elite, the fact that most of their colleagues share the same perspective makes it easy . . . to lapse into false generalizations from their own experience. It is all too easy to mistake oneself for a neutral “ideal observer” when no one is present to point out the specificity of one’s actual stance by countering with direct experience from a different vantage point.<sup>12</sup>

Awareness of multiple vantage points is related not only to “mobile” minds but also to cosmopolitanism, the fourth and final skill of Berger’s sociologic consciousness. Simply, cosmopolitanism is an openness to the environment, to diverse ways of thinking and acting; it is a broad-minded, sensitive, emancipated belief about human life in all its variations. As Berger observes, an individual with such affinities has a mind that is “at home wherever there are other [people] who think.” This is the spirit from which genuine compassion arises, from an authentic acceptance of people in *all* their varieties, values, and lifestyles.

**Interdisciplinary thinking.** After this early formal course in knowledge and how it is made and used, the medical curriculum would blend domains of knowledge throughout: the biosciences and social sciences, clinical sciences and humanities, community medicine and public health, economics and health policy. When students routinely engage in the content, methods, and skills of multiple disciplines other than those found in the basic and clinical sciences, they find rich, complicated, provocative knowledge of the complexities and conflicting practices of health care. They gain different understanding and insights about human phenomena that might not have occurred without such interdisciplinary encounters. They may be moved to ask different questions of themselves and their profession. They recognize gaps, absences, and harmful biases in their knowledge even as they

see its intricate connections, conceptual elegance, and enormous strengths. These and many other intellectual adventures occur during interdisciplinary studies in medical education, but only when teaching and classroom environments foster a spirit of critical, self-reflective inquiry.

Indeed, if interdisciplinary inquiry—including bioethics, literature, philosophy, sociology, and history of medicine—is to avoid the characterization of a “magic bullet,” medical educators cannot merely add on content. Whenever possible, interdisciplinary inquiry works best and is most intellectually challenging when it exists within course work, not when disciplines are placed side by side in discrete, self-contained entities. Several new courses the Northeastern Ohio Universities College of Medicine includes embody this spirit. A revamped infectious diseases course now includes microbiology, internal medicine, radiology, pathology, pharmacology, and Abraham Verghese’s memoir, *My Own Country: A Doctor’s Story of a Town and Its People in the Age of AIDS*.<sup>7</sup> “Women’s Health: Views from Literature, Communities, and Clinical Medicine” is a fourth-year elective where students read novels, memoirs, historical essays, and poetry; visit domestic violence shelters, community counseling sessions for batterers, and Planned Parenthood clinics; and interact with numerous in-class panels of women giving their first-person accounts of breast cancer, domestic violence, reproductive technologies, and midwifery. In such settings students are able to view, side by side, different kinds of knowledge, to see how each is made and used, and to see that what one kind of knowledge illuminates, another obscures. An interdisciplinary toolbox permits, even encourages, such thinking.

The curricular possibilities are endless if faculty themselves possess mobile minds. Cardiovascular study could include relevant learning across basic sciences disciplines, epidemiology (including issues of race, ethnic identity, gender, and class), clinical cardiology, support groups for persons who have had heart attacks, transplantation ethics and issues of access to basic care, education, and prevention, along with historical, religious, artistic, and literary portrayals of the heart. Gross anatomy could logically include investigation of death and dying, including cross-cultural and spiritual/religious perspectives, along with hospice experiences. As ambulatory locations for medical education continue to proliferate, hospital-based, physician-based clinical medicine would be further expanded (not replaced) to include relevant community-based clinical experiences—hospice, shelters, clinics, nursing homes, reproductive services—taught by health care professionals such as nurses, social workers, therapists, and pastoral care professionals. Such interdisciplinary inquiry is intended not to dilute the scientific basis of medical education but to increase the *intellectual* basis of medicine by drawing heavily on science *and* the content and



methods of other disciplines that critically and creatively inform its theory and practice. When interdisciplinary inquiry is evident in the medical curriculum, it cannot help but foster in students the same critical, flexible thinking that in turn fosters compassionate, communicative, and socially responsive doctoring, that is, the development of professionalism.

**Economic/political dimensions of health care.** According to Arnold Relman, few graduates of U.S. medical schools have a “coherent understanding” of where the trillion dollars annually spent on health care comes from or where it goes.<sup>14</sup> What he strongly urges is not a course in economic theory, but rather practical knowledge of the health care “market.” Such knowledge is another domain in which to educate doctors who are able to enact professionalism in a more authentic and effective way, cognizant of the economic and political systems in which they work. Often “lapses” in professional behavior are less about doctors’ characters and more about how well they understand the social systems in which they work. In other words, a significant component of professionalism requires that students have thorough, sophisticated, and critical knowledge of the current health care system in order to be compassionate! Without it, professional values such as “caring” remain in an abstract state, untethered to the political and economic environment in which they are enacted.

Moreover, Relman continues, students need a thorough understanding of the different forms of managed care and the economic/political bases of each, a familiarity with the philosophical conflicts between bottom-line business managers and practicing doctors, and a critical knowledge of the “ethical, legal, and professional issues raised by the industrialization of health care.” He further notes “economic conflicts of interest involving physicians employed by, contracted with, or invested in for-profit health care companies; corporate restraints on professional autonomy and interference with doctor–patient relationships; and antitrust constraints on collective actions by physicians” as critical areas of inquiry for doctors in training. Students would address these issues more fully in a required seminar embedded in the third year, when they are immersed firsthand in the issues.

Of course, all these curricular recommendations are hollow, even if implemented, if the medical environment is characterized by a singular, hypercompetitive focus on grades and class ranks by students, and by a lack of recognition and rewards for faculty who devote energy to mentoring students, innovative teaching, and the time-consuming work of interdisciplinary collaboration. Reiser describes this powerful influence that institutional leaders wield in “stewardship of resources, the humane use of authority, the role of values in making judgments, and exercise of patience and courage un-

der duress, how to admit mistakes, how to forgive them, the application of knowledge in taking action, [and] the balance of personal and professional commitments.”<sup>15</sup> To paraphrase an aphorism, the medical student apple doesn’t fall too far from the medical school tree.

### Assessment and Licensure

Of course, this scenario would not work without like-minded accrediting and evaluation entities, from the schools’ examinations to all parts of the NBME’s examinations. Medical educators, learning from nearly a century of evaluation theory developed outside medicine, would need to put in place measures that provide frequent and growth-oriented feedback to students in terms of their mastery of several domains: knowledge of basic scientific and clinical concepts and skills; their understandings of complex social, cultural, economic, and ethical issues; and their emerging and ongoing maturity and development of professionalism. Medical schools would no longer use class ranks and numerical scores to determine students’ competencies. Instead, evaluation of students would include a simple pass/fail for all their course work plus faculty’s written narratives about the students’ clinical reasoning skills, their abilities to forge caring relationships with patients, and their values, attitudes, and cultural sensitivity. The USMLE Part 1 would also become a pass/fail enterprise to ensure that all students, regardless of their career plans, possess the knowledge, skills, and attitudes deemed essential to excellence anywhere in medicine, rather than acting as a gateway to the most highly prized residencies. More importantly, it would seek evidence of students’ flexibility to draw on multiple domains of knowledge to make accurate, reasoned, culturally respectful, compassionate decisions. Lewis Thomas similarly called for such an undertaking, one that would evaluate “the free range of a student’s mind, his tenacity and resolve, his innate capacity for the understanding of human beings, and his affection for the human condition.”<sup>10</sup> Class rank and board scores yield none of these.

### CONCLUSIONS

Our attempt to reconceptualize professional development has been grounded in issues of knowing and knowledge: What knowledge is valued in and by medicine? What are the orientations and skills needed to make and use such knowledge? What necessary kinds of knowledge and skills are excluded or denigrated in the medical curriculum? What different kinds of knowledge do students need to become doctors—not bioscientists—who give *all* their patients skilled and compassionate care? How can the medical education process and content be changed so that students learn these kinds of knowledge in a well-integrated curriculum?

Our argument signals a move away from a focus on *ends*—the values and attitudes that denote professional development—toward a focus on *means*—the intellectual tools students need for the ongoing process of professional development. Different ways of knowing figure prominently in this reconceptualization, for we argued that students are more likely to develop the time-honored values and attitudes of the profession if the medical curriculum systematically includes the knowledge and skills to foster the process. Such an encouraging environment can also be thought of as a corrective, as Nicholas Burbules describes it, “against complacency, against the closing off of certain questions as settled.”<sup>1</sup> Medical students, given the knowledge and skills that move them beyond the taken-for-granted in medicine, can be empowered to attend compassionately to others, to communicate earnestly and effectively with patients, mindful and respectful of all human variations, and to take their social responsibilities seriously within the context of their own lives. And it is up to medical educators to create an environment where this is possible.

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