REVIEW ARTICLE

MEDICAL EDUCATION

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The Developing Physician — Becoming a Professional

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We all reflect on our formal training in medicine and know that somehow we made the transition from being a student in a classroom to being a seasoned clinician caring for patients. We spent years acquiring the knowledge and skills necessary to function as a physician, and part of that learning was accomplished by following examples and by trial and error. Most of us are still learning how to be better "professionals," but we are building on a foundation that was developed in medical school and early postgraduate training. These educational and training environments have changed substantially in recent years, so it is pertinent to ask whether we are cultivating in current students and residents the professional behaviors we would seek should we need medical care.

When teaching students our core values, we must consider the real world in which they will work and relax.[1-4] The concept of "teaching" must include not only lectures in the classroom, small group discussions, exercises in the laboratory, and care for patients in clinic but also conversations held in the hallway, jokes told in the cafeteria, and stories exchanged about a "great case" on our way to the parking lot. This broad concept of teaching includes three basic actions: setting expectations, providing experiences, and evaluating outcomes (Table 1).[5,6] Although the literature on professionalism generally focuses on only one or another of these three tasks,[7] a comprehensive program requires us to address all three.

Setting Expectations

Remembering back to your own first day on the wards as a third-year medical student, you can probably still feel the anxiety and uncertainty. Each rotation brought a new set of rules, a new set of behavioral norms, and a new community of physicians and health care professionals with whom to engage. When is it appropriate for a medical student to disclose test results to patients? What should you do if you discover an error that did not change a clinical outcome? Can a resident leave the bedside of a critically ill patient because patients are waiting to be seen in the resident's continuity clinic?

Unfortunately, the rules were unwritten and often discovered only when you made a mistake. It makes more sense to set explicit goals and expectations for students; for the most motivated, this may be the only step necessary. Through initiatives like those supported by the Arnold P. Gold Foundation, medical schools have moved professional expectations to center stage. Students at most schools now begin their first year with a "white-coat" ceremony, in which they learn the meaning of the responsibility that comes with wearing a white coat, the expectations for humanism and professionalism. This is also often the occasion when they recite the Hippocratic Oath or a similar oath of professionalism.[8] Orientation sessions

for preclerkship and clerkship experiences often communicate explicit expectations for professional behavior. The Liaison Committee on Medical Education and the Accreditation Council for Graduate Medical Education have explicit expectations for professionalism,[9,10] including clear policies and procedures that define professionalism and delineate appropriate responses to unprofessional behavior. Continuing a public professing of principles[11] into the years of residency and practice is unusual but important to ensure that physicians remain committed to a common set of expectations for the profession. The Code of Medical Ethics from the American Medical Association and the Charter on Medical Professionalism[12] serve to advance these principles and expectations.

Table 1. Teaching Professionalism.

Setting expectations
White-coat ceremonies
Orientation sessions
Policies and procedures
Codes and charters
Providing experiences
Formal curriculum
Problem-based learning
Ethics courses
Patient–doctor courses
Community-based education
International electives
Hidden curriculum
Role models
Parables
The environment as teacher
Evaluating outcomes
Assessment before entry into medical school (multiple medical interview)
Assessment by faculty
Assessment by peers
Assessment by patients (patient satisfaction)
Multiperspective (360-degree) evaluation

PROVIDING EXPERIENCES

Until the late 1970s, the formal teaching of ethics, professionalism, and humanism was not part of the medical school curriculum.[13] Since then, educators have developed innovative curricular experiences to expose students to issues of professionalism and promote knowledge of ethical principles,[14] skills of moral reasoning,[15] and the development of humanistic attitudes. One of the primary goals of problem-based learning (a group-learning process characterized by the shared creation of goals and the pursuit of knowledge) is the development of teamwork and leadership skills,[16] attributes central to professionalism. Most medical schools now require students to take a formal ethics course.[14] Courses on managing the doctor–patient relationship[17] generally include sessions in which students reflect on their experiences with patients and their developing professional persona. Obtaining experience in underserved communities and international settings often helps students understand the social role of physicians.[18,19] Although the face validity of such approaches is high, the effectiveness of these additions to the curriculum has not been formally tested.

Potentially more important than these formal elements of the curriculum are the informal experiences of medical students and residents.[1,2] A study of primary-school education was the first to label this sort of experience as part of the "hidden curriculum" — "the curriculum of rules, regulations and routines, of things teachers and students must learn if they are to make their way with minimum pain in the social institution called the school."[20] In the context of medical student education, the hidden curriculum of rules, regulations, and routines is transmitted mostly by residents (rather than faculty) in clinic hallways and the hospital, often late at night, when residents and students are on call.[21,22]

Teaching in the hidden curriculum happens through role modeling and the telling of parables as well as through the framework of the educational environment itself. Faculty often perceive themselves as role models for students and claim that this is one of the primary means through which they teach professionalism. But a role model is "someone who, in the performance of a role, is taken as a model by others."[23] Role modeling is in the eye of the beholder — the student, not the teacher. "Individuals who are seen as mentors may not realize that they are teaching professional values, and those not seen as mentors may believe that they are."[24]

Educators now believe that the act of role mod-

eling is insufficient.[24-26] Role modeling must be combined with reflection on the action[27,28] to truly teach professionalism. Attending physicians are not presumptuous enough to believe that if they simply prescribe the correct medication to a patient and leave the room without discussion that the students who are observing will learn to treat the disease. Similarly, modeling professional behavior on the part of a teacher (e.g., showing compassion to a dying patient or offering reassurance about recovery) without following up with discussion constitutes a missed opportunity for teaching professionalism.

Parables are a powerful means of transmission of cultural values; the norms of professional behavior have been handed down through generations of doctors using stories with meaning.[29-31] In medicine, parables often start with "I had this great case" or "When I was an intern."[32] What ensues is a story about a fascinating medical case with a moral about what it means to be a doctor. The published writings of William Carlos Williams, Jerome Groopman, Atul Gawande, and others take this process to its highest form. But these stories are exchanged every day in conversations over lunch, in the hallways, and outside the hospital — a story about how a patient survived when perhaps he should not have, a story about how you would have missed the diagnosis had you not stopped to ask one more question, a story about an observation from a nurse that alerted you to an unexpected problem. These stories not only serve to transmit professional values but also reveal the struggle of how we try (and sometimes fail) to meet the highest standards of professional conduct.[33] The tradition of storytelling is instructive for students, but building it into a formal curriculum is a challenge.

The health care environment itself can also have a pervasive effect on professional values. Perhaps some readers remember when patients' charts hung from the foot of the bed. In a world governed by the Health Insurance Portability and Accountability Act of 1996 and the computerized medical record, patient information is revealed only behind closed doors in a double-password–protected patient information system in which an advance warning tells you that all access is being tracked. Although there is ample reason for concern about confidentiality in a world where almost anyone's personal health information is only a few mouse-clicks away,[34] the environment itself actually does much of the teaching. An environment with high patient volumes and low staff-to-patient ratios has been shown to foster an attitude among residents that their job is to "get rid of patients."[35] Recent changes in residents' duty hours may have both positive and negative consequences for professional behavior.[36] For example, limiting duty hours may give residents time to take better care of themselves but may also limit the development of a trusting relationship with patients.

EVALUATING OUTCOMES

Even the clearest of expectations and the best of experiences will not guarantee professional development. Teachers must evaluate students both to determine whether the lessons were learned and to motivate students to learn what is important. Our present emphasis on the assessment of knowledge and skills has produced a technically competent pool of professionals. However, the absence of equally stringent methods for measuring professionalism leaves students and residents to consult their own moral compasses about what constitutes professional behavior.[37]

In the past decade, methods for evaluating professionalism have been developed and applied in many different medical settings.[38,39] The best capture the behaviors of students in real-world contexts in which they are called on to resolve a professional dilemma that is relevant to their everyday lives.[40] First-year medical students may struggle with whether to cheat on examinations,[41] clinical clerks with how much of a resident's note to copy,[42] and practicing physicians with how much deception will be necessary to get a mammogram covered by an insurance provider.[43]

Measures of professionalism are no longer subjective. Innovative new admissions procedures are showing promise in detecting aspects of professional behavior even before a candidate enters medical school. For example, it is now possible to reliably predict interpersonal and communication skills with the use of multiple, brief standardized interpersonal interactions (the so-called multiple medical interview).[44] Preclinical students' thoroughness with routine administrative responsibilities correlates with faculty members' perceptions of professionalism in clerkships, with items as mundane as completing course evaluations and requests for immunization records being indi-

cators of professional behavior.[45] State medical board sanctions for unprofessional behavior are associated with negative comments by faculty on clerkship evaluation forms.[46,47]

Peer assessment, though perhaps useful only for formative purposes, is a promising avenue for assessing and promoting professionalism.[48] Patients' perceptions of physician conduct can help identify the minority of physicians who have consistent problems with professionalism[49] and help to reward those whose performance is exemplary. Use of a combination of these methods in a multidimensional, multiperspective (so-called 360-degree) professionalism assessment is now expected as part of medical school performance evaluation[50] and residency certification.[9]

TEACHING PROFESSIONALISM

Medical educators must set expectations, create appropriate learning experiences, and evaluate outcomes. Educators must be clear about professional expectations — both the rationale behind them and the consequences of failing to meet them. Without well-defined expectations, students will not have a clear ideal to strive for. Educators must design clinical experiences that allow students to see how seasoned practitioners negotiate the dilemmas of medical practice. Although we allow students to spend a full hour with a patient to take a history and perform a physical examination, busy physicians do not have that luxury. Inherent conflicts between what we teach and what students see in real-life settings will not promote professionalism.[22,51] At a minimum, such conflicts must be explained to students. Efforts to teach the ideals of professionalism can be easily overwhelmed by the powerful messages in the hidden curriculum.[7,52]

The goal of evaluation should be to reward the best professional behavior, enhance professionalism in all students, identify the few students who show deficiencies in professionalism, and dismiss the rare student who cannot practice professional medicine. However, even the best evaluation strategies will be undermined unless faculty are trained to promote the kind of role modeling that is so essential to a student's professional development. This kind of faculty development is not easy. How do we teach it in real time in the reality of today's academic environment? Professional development is complex[1,2]; it is a daunting challenge for individual teachers to both recognize the problem[53] and respond effectively.[54] How do we reach the faculty most in need of instruction in role modeling, who may also be the most resistant to it? Where will the resources for these interventions come from?

The solutions rest not only with developing our skills as teachers[25-28] but also with improving the environment in which we teach.[55] Students need to see that professionalism is articulated throughout the system in which they work and learn. In our academic medical centers, this means providing an environment that is consistently and clearly professional not only in medical school but throughout the entire system of care. The challenge becomes even more daunting when the goal is to institute an attitude of professionalism in multiple organizations.[56] Some of the most powerful and important interventions can be made at the administrative level[57]: removing barriers to compassionate care, ensuring access to care, designing efficient health care delivery systems, and acknowledging teamwork as a fundamental principle of health care. Improving the health care system will go a long way toward promoting the professionalism of students and trainees.

As we expect greater professionalism from our students, we need to expect the same from teachers and organizational leaders. Anything else is disingenuous. For example, students have every right to expect that mistreatment by residents and faculty is taken just as seriously as unprofessional behavior on the part of students.[58] Expanding the criteria for incentive pay from patient satisfaction alone[49] to include learners' satisfaction with professional interactions could serve to link assessment and reward.

Professional organizations must advocate for our identity as a profession that celebrates the primacy of patients' interests over self-interest[12,59] while acknowledging that physicians do have legitimate self-interests. Our profession is not a business, and we must resist redefining our patients as "managed care lives" or "consumers." At the same time, licensing boards need to take swifter action against unprofessional behavior because public safety and the public's trust of our profession are at stake.

Physicians are asked to deliver professional care in a complex and ever-evolving health care system, and medical educators have a critical role to play in maintaining and enhancing profes-

sionalism. This is, after all, our contract with society. Jordan J. Cohen, president emeritus of the Association of American Medical Colleges, writes, "Failing to deliver on these expectations . . . falling short on the responsibilities of professionalism, will surely result in a withdrawal of the tremendous advantages that now accompany our profession's status."[60] What is at stake is nothing less than the privilege of autonomy in our interactions with patients, self-regulation, public esteem, and a rewarding and well-compensated career. In pursuit of the highest ideals of professionalism in service to our patients, as well as in our own self-interest, medical educators would be wise to take a comprehensive view of the task at hand, setting clear expectations for behavior, designing meaningful experiences that promote professional values, and insisting on the widest possible application of robust behavioral outcome measures across the entire continuum of medical education and practice.

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