

Professionalism in medical education, an American perspective: from evidence to accountability

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CONTEXT Professionalism is central to sustaining the public's trust in the medical profession; it is the essence of the doctor–patient relationship. Evidence exists that public trust is waning and that doctors are facing powerful contemporary threats to their professional values. The role of medical education is paramount in preparing future doctors to recognise and overcome these threats; to do so will require substantial change in the culture and environment of medical education.

OBJECTIVES The aims of this paper are to provide a definition and framework for professionalism in the context of medical education, describe current threats to medical professionalism, and detail the role medical schools and academic medical centres can play in preparing tomorrow's doctors to recognise and resist these threats. Additionally, the paper reviews established and potential methods for measuring professionalism and thus assuring public accountability. Finally, specific recommendations are offered for medical schools and teaching hospitals to nurture and sustain professionalism.

DISCUSSION The progressive intrusion of commercialism into the realm of medicine is threatening to replace the ethics of professionalism with the irreconcilable ethics of the marketplace. Academic medicine must assume greater responsibility and accountability for strengthening the resolve of future doctors to sustain their commitment to the ethics of professionalism. It can do so by improving the medical school admission process, enhancing both formal and experiential teaching of professionalism, and purging the educational environment of

unprofessional practices. Ten approaches that academic medicine might adopt to achieve these goals are provided.

KEYWORDS education, medical/ *standards; professional practice/ *standards; trust; *physician–patient relations; teaching/ standards; schools, medical; social responsibility; United States.

Medical Education 2006; **40**: 607–617
doi:10.1111/j.1365-2929.2006.02512.x

INTRODUCTION

If newspaper headlines reflect the reality of our times, doctors appear to be losing touch with their fundamental commitment to medical professionalism. Consider these recent examples:

- 'Doctor's links with investors raise concerns', *New York Times*, August 16, 2005;
- 'Medical schools urged to plug drug-research leaks', *Seattle Times*, August 19, 2005;
- 'Doctor disciplined for leaving surgery', *Boston Globe*, November 17, 2005;
- 'Bad medical students, bad docs – study: the signs are there early', *USA Today*, December 22, 2005, and
- 'Distance sought between doctors and drug industry', *Washington Post*, January 25, 2006.

News stories such as these admittedly offer only anecdotal evidence of a mounting problem, but a growing body of research is available to back up an alarming impression: public trust in the medical profession appears to be waning – and with it, trust in the all-important doctor–patient relationship.^{1–4}

Sustaining that trust is the job of medical professionalism. Resting on a set of time-honoured

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Overview

What is already known on this subject

Professionalism is a required competency in graduate medical education, as well as for board certification and maintenance of certification.

What this study adds

The paper reviews key literature in the social sciences and medical education; affirms that professionalism is a competency requiring formal teaching and experience throughout the continuum of medical education; underscores the importance of performance assessment using multiple evaluators and multiple methods, and provides strategies that can be applied to advance professionalism in the educational environment.

Suggestions for further research

Further research is needed to determine what, if any, specific behaviours of students and residents during the period of medical education can predict adverse patient outcomes and unprofessional behaviour in practice.

principles, professionalism requires that doctors adhere to certain principled responsibilities, chief among them, the primacy of patient welfare and the subordination of self-interest. and while trust is the cornerstone of many other professional relationships, it carries special weight in the case of medicine, where the stakes are as dear as life itself. Given that doctors hone their professional attitudes during their formative years as students and residents, medical educators have a critical role to play in ensuring that future doctors are prepared to fulfil their obligation to be trustworthy.

The discussion that follows aims to:

- 1 offer a definition of professionalism;
- 2 highlight the contemporary threats doctors face in sustaining their commitment to professionalism;
- 3 detail the role of medical schools and teaching hospitals in preparing future doctors to overcome these threats;

- 4 summarise the various means available to assess the attributes of professionalism in medical students and residents, and
- 5 recommend 10 actions that medical schools and teaching hospitals might take to strengthen their ability to nurture professionalism.

DEFINITION OF MEDICAL PROFESSIONALISM

Philosophers and thought leaders through the course of recorded history have repeatedly called upon doctors to strengthen their resolve to sustain the profession's values.^{5,6} And while each such affirmation reflected the circumstances of a particular time, the ethical theme has remained the same: the primacy of patient interest and the subordination of self-interest.^{7,8} The Hippocratic Oath required doctors to 'abstain from every voluntary act of mischief or corruption'.⁹ Maimonides admonished doctors to 'not allow thirst for profit and vision of renown and admiration to interfere with [their] profession',¹⁰ and Sir William Osler reminded doctors that medicine is 'a calling, not a business'.¹¹

In pledging fidelity to their professional ethic, doctors historically have been accorded many privileges by broader society, including the ability to determine whom to admit to their ranks, the authority to judge how best to educate future doctors, and the freedom to set and enforce their own professional standards.^{12,13} In granting these privileges, society implicitly assumes that doctors can be trusted to pursue their professional prerogatives in the public interest.¹⁴ In effect, the profession promises the public that the care it receives from doctors will be competent, rational and free of compromising self-interest. In exchange, the profession is given not only a substantial degree of autonomy over its own affairs, but a good measure of financial security and social standing as well. This implicit understanding is commonly referred to as a 'social contract' between the public and the medical profession. It is in the context of this social contract that the concept of professionalism takes its meaning.

Professionalism can be defined for all time as the means by which individual doctors fulfil the medical profession's contract with society. The specific attributes that have long been understood to animate professionalism include altruism, respect, honesty, integrity, dutifulness, honour, excellence and

accountability.^{15,16} The operational manifestations of these attributes are, of necessity, conditioned by the actual circumstances prevailing at a particular time in history. The nature of the health care system in which doctors work, the diagnostic and therapeutic technologies available to them, the kind of financial arrangements that exist, and the spectrum of disease with which the public is burdened are among the characteristics of any given era that influence the specific actions required of doctors to manifest their commitment to professionalism.

In recognition that major changes were taking place in the practice of medicine at the end of the 20th century and that public trust in medicine appeared to be eroding, a group assembled by the American Board of Internal Medicine Foundation, the American College of Physicians Foundation, and the European Federation of Internal Medicine set about formulating an operational definition of professionalism that reflected contemporary realities. The result was the publication of *Medical Professionalism in the New Millennium: A Physician Charter*.^{17,18} The Charter identified 3 fundamental principles underpinning professionalism (the primacy of patient welfare, patient autonomy and social justice) and specified 10 categories of responsibilities that today's doctors are called upon to meet (Table 1).

The validity of this affirmation of medical professionalism as guidance for today's doctors is attested to by the widespread endorsement the Charter has received from professional organisations and individuals, both in the USA and around the world.¹⁹ In offering an operational definition of medical professionalism rooted in prevailing circumstances, the Charter provides a framework both for the profession to identify behaviours that fall short of its avowed standards and for educators to assess their success in inculcating these standards in students and residents.

Table 1 Categories of doctor responsibilities required to sustain professionalism

| |
|--|
| Maintain professional competence |
| Be honest with patients |
| Respect patient confidentiality |
| Avoid inappropriate relations with patients |
| Advance scientific knowledge |
| Fulfil the obligations imposed by membership in the profession |
| Improve quality of care |
| Improve access to care |
| Promote the just distribution of resources |
| Maintain trust by managing conflicts of interest |

CONTEMPORARY THREATS TO PROFESSIONALISM

Living up to professionalism's core expectation to subordinate self-interest in deference to the interest of others has always required the surmounting of formidable challenges, not the least of which is overcoming human nature itself.²⁰ Social science research has documented what has never been much in doubt: human beings, like most living organisms, are hard-wired for self-interest. Even when individuals try to avoid it, their judgement is 'subject to an unconscious and unintentional self-serving bias.'²¹ Strong socialising influences are required to overcome this innate tendency to look out first for 'number one'.

Compounding this innate barrier to fulfilling professionalism's expectations, doctors often find themselves in circumstances rife with temptation. The ease with which doctors can make undetected, self-serving decisions under the guise of respectability is arguably greater than in any other walk of life. Indeed, one might say that doctors are surrounded by 'easy pickings'. The privacy of the examining room, the size of the authority gap between doctor and patient, and numerous financially seductive opportunities available to doctors heighten the need for vigilance and conscious self-discipline.

Added to these longstanding threats to professionalism are certain contemporary realities that are arguably even more problematic. Many doctors, particularly those who entered the profession a few decades ago, have experienced wrenching changes in the practice of medicine during the course of their careers. Mid-career and older doctors typically recall having been attracted to medicine in part because of the prospect of being 'one's own boss'. That expectation has, for many, been thwarted by the numerous constraints and 'hassles' that are common complaints among today's practitioners. Having been forced to adapt to so many unwelcome changes, many doctors feel that the promises made to them at the beginning of their careers have been broken. Unfulfilled expectations and disillusionment breed frustration and cynicism. Maintaining a commitment to the values of a profession that one believes has reneged on its promise is understandably difficult.

An even more powerful obstacle faced by today's doctors in sustaining their commitment to professionalism is the relatively recent, and by now virtually ubiquitous, intrusion of commercialism into the

realm of medicine. The ethics of the commercial marketplace are, at minimum, threatening to and, arguably, irreconcilable with, the ethics of professionalism. Table 2 illustrates the tension between the 2 value systems by contrasting the terms commonly employed in each.

Indeed, in contrasting the mottoes frequently used to express their core ideologies, one can easily apprehend the fundamental incompatibility of these 2 'isms.' Commercialism counsels *caveat emptor*, buyer beware. Professionalism promises *primum non nocere*, first do no harm. A profession that calls for wariness among those it serves, rather than trust that their well-being will be protected first and foremost, is a 'profession' in name only. Whether consciously or unconsciously, to the extent that doctors accept the view that medicine is 'just another business' and act accordingly, the stage is set for the systematic dismantling of their identity as professionals.

The challenge that doctors face in keeping commercialism's value system from encroaching on the doctor-patient relationship is made all the more difficult by the positive contributions that sound commercial practices have made to improving medicine's administrative functions. There can be no doubt that the introduction of prudent business practices have improved billing procedures, heightened concern for patient satisfaction, focused efforts on waste reduction, and emphasised the importance of systems thinking in achieving better outcomes of care. As helpful as techniques borrowed from the commercial world have been in improving the efficiency and efficacy of medical practice, their success does not justify the substitution of marketplace ethics for the tenets of professionalism as a means for preserving trust in the core doctor-patient relationship.

Table 2 Contrasting terms commonly employed to describe professionalism and commercialism

| Professionalism | Commercialism |
|-------------------|---------------|
| Doctor | Provider |
| Patient | Customer |
| Trust | Suspicion |
| Caring | Pandering |
| Services | Commodities |
| Values | Margins |
| Cures | Profits |
| Pride | Bonuses |
| Primum non nocere | Caveat emptor |

One final threat to professionalism deserves mention, and that is peer pressure. One's determination to adhere to the demanding expectations of medical professionalism would clearly be strengthened by knowing that one's colleagues were holding fast to the same standards. By the same token, if one's colleagues were observed routinely to violate those standards, and to avoid sanction in the process, one's willingness to be an outlier when 'everyone else is doing it' is bound to be weakened. Unfortunately, the prevalence – or, at minimum, the reported instances – of unprofessional behaviour among doctors appears to be on the rise, thereby giving implicit licence to others to abrogate their commitment to self-discipline

THE ROLE OF ACADEMIC MEDICINE IN SUSTAINING PROFESSIONALISM

If medicine and its practitioners are ultimately to prevail against the threats to professionalism, academic medicine must assume greater responsibility and accountability for ensuring that the next generation of doctors is fortified with sufficient resolve to resist the powerful temptations to succumb to self-interest. To accomplish this critical task, medical schools and teaching hospitals need to address 3 broad areas:

- 1 improving the selection of future doctors;
- 2 improving the formal instruction of their learners, and
- 3 purging their own learning environments of unprofessional practices.

Improving the selection of future doctors

Medical school admissions committees have an enormous responsibility. Given that so few matriculated students fail to receive the MD degree,²² admission to a medical school is tantamount to admission to the medical profession. Indeed, the success of admissions committees in assessing the academic preparedness of applicants is evidenced by how few of the students admitted prove incapable of clearing the intellectual hurdles of the rigorous medical school curriculum. Admissions committees typically rely heavily on 'objective' criteria of previous academic success to make their decisions about whom to admit. In the USA, such measures as college grade point averages (GPAs) and scores on the multiple-choice components (verbal reasoning, biological sciences and

physical sciences) of the Medical College Admission Test (MCAT) have proven especially helpful in predicting students' ability to acquire the scientific knowledge deemed essential to practise modern, evidence-based medicine. By contrast, few reliable tools are available to predict students' capacity to develop fully the character traits deemed equally essential to the practice of medicine in accordance with the precepts of professionalism.

The paucity of such predictive tools has opened admissions committees to criticism that they over-emphasise academic achievement and fail to take sufficiently into account those 'non-cognitive' attributes (e.g. altruism, motivation, commitment to service, leadership skills) that might be more indicative of an applicant's potential to become a 'good' doctor. To address this seeming imbalance, some have suggested that admissions committees establish thresholds of GPAs and MCAT scores sufficient to satisfy concerns about an applicant's preparedness for the academic rigours of the curriculum.²³ By doing so, all applicants meeting such threshold requirements could then be evaluated without further regard (i.e. blinded) to these 'objective' measures. This approach, it is argued, would permit admission committees to pay closer attention to each 'academically qualified' applicant's personality and character traits.²³

Wagoner has proposed still more comprehensive innovations in the admissions process to address the perceived imbalance in the assessment of cognitive and non-cognitive abilities. Among the steps proposed to achieve the ideal process are: gaining national acceptance for improving the process; enlisting all medical schools in the improvement process; publicising the important traits of professionalism desired in entering students; specifying issues that students must address in the 'personal statement' component of the form most widely used by medical school applicants (the American Medical College Application Service); developing a cadre of trained standardised interviewers, and developing a spectrum of 'secure' case studies to guide the admissions interview.²³

Improving instruction in professionalism

No matter what criteria they use in making admission decisions, medical schools have an obligation to ensure that their educational programmes are designed explicitly to nurture the development of the attributes of professionalism. Both the guidance provided by the Association of American Medical

Colleges (AAMC) and the Liaison Committee on Medical Education (LCME) call for attention to this critical educational objective.²⁴ In doing so, the central importance of effective faculty development activities cannot be over-emphasised.²⁵

While acknowledging the overriding importance of the 'informal' and 'hidden' curriculum in transmitting the values of professionalism, the more formal, overt elements of the curriculum should not be discounted as important contributors to students' professional development. Increasingly, formal instruction in both professional values and the cognitive rationale for upholding professionalism are being integrated into medical school curricula. A number of medical schools require specific courses devoted to professionalism throughout the 4-year curriculum. (Examples of these include Indiana University School of Medicine, McGill University Faculty of Medicine, University of California San Francisco School of Medicine, University of Pennsylvania School of Medicine and the University of Texas Medical Branch, Galveston.) To compensate for the limited clinical experience acquired in the student's first 2 years, some medical schools have instituted longitudinal, small-group learning teams.²⁶ This approach allows faculty to utilise widely accepted principles of adult learning, which comprise meeting the learner's needs, being life-centred, utilising experiences as a source of learning, self-directed learning, and the flexibility to allow for differences in learning styles among groups.²⁷ These small-group learning teams typically address the doctor-patient relationship, cultural sensitivity and communication skills.

Other examples of explicit curricular components that focus on professionalism include: courses in the history of medicine, with emphasis on the evolving concept of medical professionalism; small-group, case-based discussions of both professional and unprofessional behaviour; seminars analysing illustrative writings drawn from the humanities; opportunities to follow patients with chronic illnesses throughout medical school, with emphasis on the doctor-patient relationship; occasions to develop and discuss a student-devised code of conduct;²⁸ and opportunities to participate in community service activities in which professional responsibilities are highlighted.²⁹

Formal instruction in professionalism is also garnering necessary attention at the level of graduate medical education. Professionalism is 1 of the 6 general competencies identified by the Accreditation

Council for Graduate Medical Education (ACGME) as essential for all trainees to demonstrate before completing residency. (The others are: patient care; medical knowledge; interpersonal and communication skills; practice-based learning and improvement; and systems-based practice.³⁰) To remain in good standing with the ACGME, all 8000-plus accredited residency programmes training approximately 105 000 doctors are now required to incorporate instruction in professionalism into their curricula and to indicate how they evaluate trainees for competency in this domain.

Purging learning environments of unprofessional practices

Improving the selection and formal instruction of future doctors can only do so much to enhance the commitment of doctors to professionalism. For academic medicine to be truly effective in strengthening professionalism, it must come to grips with current practices within its own ranks that are themselves part of the problem. To be authentic cradles of professionalism, medical schools and teaching hospitals must maintain learning environments that reflect medicine's loftiest aspirations. As noted earlier, it is the hidden curriculum that educators recognise as most powerful in transmitting the values of the profession.^{31–33} It is not what students hear in the classroom that makes the most durable impression. It is what they see and experience in the everyday practice of faculty members, residents and fellow students that etch their attitudes and harden their perceptions about the real expectations of the profession.³⁴

Unfortunately, what students too often see and experience in today's educational environments are flagrantly unprofessional practices. Every time a student witnesses a doctor disrespecting a patient, demeaning a nurse, exploiting a resident, shilling for a drug company, or exhibiting any other unprofessional behaviour, his or her dedication to medicine's cherished values is undermined.³⁵

Coulehan recently provided an eye-opening account of modern hospital culture and its hidden curriculum.³⁶ He finds learning environments devoid of patient empathy, where the 'vital universe' is often 'centred entirely outside the patient room in conference rooms, hallways and unit stations'. He notes that the 'trainee's moral development may be hindered by everyday learning situations' that include 'conflicts between the requirements of medical education and those of

good patient care, assignments that entail responsibility exceeding the student's capabilities, and personal involvement in substandard care'. As a first requirement for correcting the shortcomings in today's learning environments, Coulehan calls for increasing dramatically 'the number of physicians who can role model professional virtue at every stage of medical education'.

To assist medical schools and teaching hospitals in improving the 'professionalism quotient' of their learning environments, the AAMC has fostered the adoption of 'compacts' addressing both the undergraduate and the graduate segments of the medical education continuum. In 2001, a *Compact Between Teachers and Learners of Medicine* was developed for use by medical schools³⁷ and, in 2005, the analogous *Compact Between Resident Physicians and Their Teachers*³⁸ was developed for use by residency programmes. The latter was crafted in consultation with numerous graduate medical education stakeholder groups. It articulates a set of 10 commitments faculty and residents could choose to make to one another in order to sustain learning environments that foster academic excellence, inspire the highest standards of professionalism and ensure the delivery of safe, quality care to patients.³⁹

Modelling professionalism also entails practices beyond those emblematic of good patient care. Among the more obvious and pervasive practices within academic medical centres that contribute to the undermining of professionalism are certain interactions with the pharmaceutical and medical device industries. Over the past several decades, the marketing activities of these industries have enticed the faculty and leadership of many medical schools and teaching hospitals into highly questionable financial relationships. Concerns have been raised about conflicts of interest compromising the objectivity of doctors' decision making (e.g. prescribing practices) and the integrity of science and scientific research. Despite compelling evidence documenting the potential adverse impact of gifts and other blandishments on doctors' commitment to placing patient interest uppermost, industry sponsorship of numerous suspect activities remains widespread. Common examples include 'free' meals for students and residents coupled with drug 'detailing'; sponsorship of seminars and lectures highlighting profitable products; payment for trips to 'educational' programmes; unrestricted 'grants' to favoured faculty and departments; and engaging influential faculty members in 'speaker's bureaux' as well paid industry spokespersons.

Medical educators must ask themselves what lessons students take away from their immersion in learning environments so rife with commercial influence and industry bias. A recent *New York Times* editorial went so far as to assert that the medical profession ‘had sold its soul’ in exchange for ‘what can only be described as bribes’ from drug and medical device manufacturers.⁴⁰

Recently, a group of prominent medical educators called for academic medical centres to take the lead in eliminating such conflicts of interest. Marketing and market values, they argued, should not be allowed to undermine doctors’ commitment to their patients’ best interests or to scientific integrity.⁴¹ The recommendations put forth can serve as a stimulus to all academic medical centres to look at their policies with an eye toward change and greater accountability. As stewards of medicine’s future, medical schools and teaching hospitals have a special obligation to ensure that the settings in which students and residents acquire their professional identities truly reflect the profession’s highest standards. Much work remains to be done to purge those settings of practices antithetical to that obligation.

As important as it is to rid learning environments of unprofessional practices, it may be even more important to offer public recognition for instances of exceptional professionalism. Indeed, such instances abound in medical schools and teaching hospitals and should be seized upon as opportunities, not just to illustrate, but to celebrate the profession’s values and ideals. Singling out emblematic examples of professionalism for special recognition can send a powerful message to students and others about what the profession truly believes is important.

A notable example of this kind of celebratory activity is the white coat ceremony,⁴² which has been adopted by most medical schools in the USA. This ceremony is commonly conducted at the beginning of medical school and is designed to affirm through relevant awards and exhortations the foundational beliefs and commitments of the medical profession.

Another successful model for showcasing professionalism in academic institutions is the Gold Foundation Humanism Honor Society (GHHS). The GHHS inducts into its ranks medical students and faculty staff who have demonstrated exemplary attitudes, a commitment to caring and a dedication to professionalism in medicine. Just as Alpha Omega Alpha (a long-revered medical honour society based on high academic achievement during medical school) has

served to symbolise the medical profession’s dedication to scholarship, the GHHS offers a tangible way to accentuate the importance of the profession’s primary commitment to patients’ interest.⁴³ To date, 50 GHHS chapters have been established, predominantly in US medical schools.

Yet another example of how an institution can promote professionalism is by empowering a respected individual in authority to advance the institution’s agenda in this arena. Several medical schools (e.g. the University of Pennsylvania Medical School and the University of Texas Health Sciences Center at San Antonio) have established positions with this responsibility within their administrative hierarchy (e.g. Associate Dean for Professionalism and Humanism) to provide leadership and a focal point for accountability in achieving institutional objectives.

Assessing the professionalism of students and residents

The challenge that medical educators face in evaluating professionalism can be summed up in 2 aphorisms:

- 1 if it can’t be measured, it can’t be improved, and
- 2 they don’t respect what you expect; they respect what you inspect.⁴⁴

The wisdom contained in these sayings is straightforward. One can improve the performance of students and residents in the realm of professionalism only by developing and implementing valid measures of the attributes we wish to nurture. Moreover, unless we hold students and residents accountable for demonstrating those attributes in a substantive (high-stakes) assessment, they are unlikely to place a high priority on achieving our putative standards.

Unfortunately, professionalism remains among the most difficult domains of doctor competence to assess.⁴⁵ Although many promising approaches are under evaluation, no single measure or set of measurements has yet proven sufficiently reliable and valid to meet demanding psychometric criteria.⁴⁶ This is not to say, however, that useful information cannot be gained from multiple observations over time. Indeed, educators have employed both formative and summative evaluations, often coupled with directed self-assessment and self-reflection, to provide feedback to learners about their professional development and to underscore the importance of this component of doctor competence.

The current state of the art in this demanding area of assessment has been well summarised in *Measuring Medical Professionalism*.⁴⁶ In this multi-authored work, leaders in medical education and assessment explore a wide variety of available tools and methodologies and offer evidence-based advice for evaluating both individuals and institutions. Common approaches currently in use are: peer assessment; the objective structured clinical examination (OSCE); direct observation by faculty; critical incident reports; and learner-maintained portfolios that facilitate periodic self-reflection.

The potential utility of peer assessments deserves special mention. Offering peers the opportunity, anonymously or otherwise, to evaluate one another can provide a unique perspective on professional development. Peers typically have frequent contact with each other in spontaneous and unrehearsed settings, have no authority over each other, and share the same hierarchical status in the institution. It is reasonable to assume therefore that peers are often in a better position than faculty to observe and evaluate important professional attributes, such as acceptance of responsibility, conscientiousness, effective communication, respect for patients and other health professionals, and even altruism. As Arnold and Stern report, 'It is [the] non-hierarchical relationships among peers that can promote both authentic behaviour and genuine feedback among peers while reducing the biasing influence of social desirability.'⁴⁷

The OSCE, widely used in evaluating clinical skills, also deserves special comment as a potentially useful tool for assessing professionalism. Using standardised patients, for example, to simulate a variety of reality-based clinical scenarios can provide insights into how a trainee might behave in a real-life setting. Although the psychometric reliability of OSCE-type examinations of ethical behaviour and professionalism is too low for high-stakes purposes, performance at the extremes can provide helpful formative feedback. And apart from their evaluative potential, OSCEs designed to simulate challenges to professionalism can be useful for desensitising students to the ambiguous and difficult situations they are likely to encounter in the clinical setting.⁴⁸

Yet another promising approach to assessing professionalism at the level of medical school and residency training is the newly developed professionalism mini-evaluation exercise (P-MEX). This tool, based on the well received mini-clinical evaluation exercise,⁴⁹ was developed by researchers at McGill University Faculty

of Medicine and the University of Toronto Faculty of Medicine and appears to be a feasible method for the formative assessment of professionalism in a variety of settings.⁵⁰ The form used by the P-MEX evaluation contains 21 specific behaviours and is completed by a trained observer (e.g. faculty member) following a 15–20-minute observation. Examples of the behaviours that can be evaluated are: 'showed interest in the patient as a person'; 'advocated on behalf of the patient'; 'maintained appropriate boundaries', and 'avoided derogatory language'. Those behaviours that are observed are evaluated on a 4-point scale (i.e. unacceptable, below expectations, met expectations, exceeded expectations). The simplicity of this assessment tool should promote rapid feedback and encourage self-reflection. According to preliminary findings, use of the P-MEX also raises awareness among faculty observers regarding their own behaviour.⁵⁰

The critical importance of inculcating professionalism during graduate medical education has been underscored by the American Board of Medical Specialties (ABMS), which has adopted the same 6 competencies promulgated by the ACGME as a framework for board certification of individual doctors. All 24 member boards of the ABMS are now required to assess professionalism (and the other 5 competencies) at the time of initial board certification and during maintenance of certification.⁵¹

Despite the limitations of current methods for assessing competency in the domain of professionalism, certain behaviours exhibited by medical students do appear to have predictive validity. Building upon previous work in this area,⁵² Papadakis *et al.* studied graduates of 3 medical schools who were later disciplined by 1 or more of the country's state medical boards. The results were striking; students who had been judged 'irresponsible' in medical school were 8 times more likely than others to be disciplined as doctors.⁵³ Equally striking was the degree of consistency across the 3 institutions, bolstering the view that medical educators can, indeed, credibly evaluate professionalism. While more research is clearly needed to better define the specific behaviours most indicative of inadequate professional development, this study suggests that documented instances of 'poor reliability and responsibility', 'lack of self-improvement and adaptability', and 'poor initiative and motivation' deserve special attention.⁵⁴ A critical question also in need of further research is what, if any, remediation efforts might be effective when a concern arises about unprofessional behaviour in the educational setting.

RECOMMENDATIONS FOR THE FUTURE

Academic institutions must accept greater responsibility and accountability for the professionalism of future doctors if the profession of medicine is to sustain the public's trust. The following recommendations comprise an action agenda for medical schools and teaching hospitals to consider as they work to strengthen the resolve of the next generation of doctors to sustain their commitment to professionalism.

Defining professionalism

Medical schools may benefit from using a common definition and framework to establish performance standards and guide assessment of professionalism:

- 1 adapt the operational definition of professionalism articulated in the *Physicians' Charter* as a framework for education and evaluation.

Improving the selection of future doctors

Medical schools should improve their processes for screening prospective students:

- 2 work to develop a consensus that increasing the weight accorded to non-cognitive factors is both needed and possible within the admissions process.

Improving instruction in professionalism

Medical schools should formally incorporate the components of professionalism into their learning objectives:

- 3 integrate instruction in professionalism throughout the curriculum and utilise a variety of formats, including free-standing required courses, small-group learning teams and opportunities for patient advocacy and community service, and
- 4 mount effective faculty development activities to improve the effectiveness of the formal instruction in professionalism.

Sustaining learning environments emblematic of professionalism

Medical schools and teaching hospitals must maintain learning environments that promote the ability

of doctors to fulfil the medical profession's contract with society:

- 5 adapt and implement the principles articulated by the Compact between Teachers and Learners of Medicine and the Compact between Resident Physicians and their Teachers;
- 6 strengthen the institution's conflict of interest policies and eliminate the problematic interactions with the pharmaceutical and medical device industries that undermine professionalism, and
- 7 celebrate professionalism through ceremonies, public recognition and awards that recognise exemplary attitudes and behaviours of students, residents and faculty.

Assessing the professionalism of students and residents

Academic medical centres should collaborate to develop reliable measurements of professionalism, implement strategies for remediation, and require demonstrated competency in professionalism as a criterion for graduation from medical school and residency training:

- 8 establish an effective system to assess professionalism and hold students accountable for demonstrating professional behaviour throughout undergraduate and graduate medical education;
- 9 consider implementing the professionalism mini-evaluation exercise as a feasible tool for formative evaluation, and
- 10 expand research to better define specific behavioural characteristics that predict adverse outcomes and unprofessional behaviour in practice.

CONCLUSIONS

Evidence of a waning commitment to professionalism among US doctors has resulted in a renewed interest in the role of medical schools and teaching hospitals in inculcating professional values among medical students and residents. To assist medical educators in fulfilling that role, this article delineates the attitudes and behaviours that compose the operational definition of medical professionalism for contemporary doctors; reviews the longstanding and more recent threats doctors face in sustaining their commitment to professionalism; highlights the critical importance of purging unprofessional practices from the learning environments in which

students and residents experience the hidden curriculum, and summarises the methods available for nurturing and assessing professionalism as students and residents progress through their education. A set of recommendations is offered to help academic medicine advance the teaching and evaluation of professionalism. The ultimate goal is to sustain public trust in medicine's social contract by strengthening the resolve of future doctors to uphold the primacy of patients' interests in all of their professional activities.

Acknowledgements: the author gratefully acknowledges Linda L Blank, AAMC, for her expert advice in drafting the manuscript and Louise A Arnheim, AAMC, for her editing assistance in preparing the manuscript for publication.

Funding: none.

Conflicts of interest: none.

Ethical approval: not required.

REFERENCES

- 1 Kassirer JP. *On the Take: How Medicine's Complicity with Big Business Can Endanger your Health*. New York: Oxford University Press 2005.
- 2 Mechanic D. Changing medical organisation and the erosion of trust. *Milbank Q* 1996;**74**:171–89.
- 3 Debas HT. Surgery: a noble profession in a changing world. *Ann Surg* 2002;**236**:263–9.
- 4 Barondess JA. Medicine and professionalism. *Arch Intern Med* 2003;**63**:145–9.
- 5 Rothman DJ. Medical professionalism focusing on the real issues. *N Engl J Med* 2000;**342**:1284–6.
- 6 Sullivan W. *Work and Integrity: the Crisis and Promise of Professionalism in America*. New York: Harper Collins 1995.
- 7 Cruess SR, Johnston S, Cruess RL. Professionalism for medicine: opportunities and obligations. *Med J Aust* 2002;**177**:208–11.
- 8 Swick HM. Toward a normative definition of medical professionalism. *Acad Med* 2000;**75**:612–6.
- 9 Hippocratic Oath. <http://classics.mit.edu/Hippocrates/hippooath.html>. [Accessed 9 December 2005.]
- 10 Bennett WM. 1999 ASN Presidential Address. *J Am Soc Nephrol* 2000;**11**:1548–52.
- 11 Osler W. The reserves of life. *St. Mary's Hospital Gazette* 1907;**13**:95–8.
- 12 Brandeis LD. *Business: a Profession*. Boston: Small, Maynard 1914.
- 13 Sullivan WM. *Work and Integrity: the Crisis and Promise of Professionalism in America*, 2nd edn. San Francisco: Jossey-Bass 2005.
- 14 Stevens R. Public roles for the medical profession in the United States: beyond theories of decline and fall. *Milbank Q* 2001;**79**:327–53.
- 15 Medical Schools Objectives Project. Learning objectives for medical student education: guidelines for medical schools. Report 1. *Acad Med* 1999;**74**:13–8.
- 16 American Board of Internal Medicine. *Project Professionalism*. Philadelphia: ABIM 1995.
- 17 ABIM Foundation, ACP-ASIM Foundation, European Federation of Internal Medicine. Medical professionalism in the new millennium: a physician charter. *Ann Intern Med* 2002;**136**:243–6.
- 18 Medical Professionalism Project. Medical professionalism in the new millennium: a physician charter. *Lancet* 2002;**359**:520–2.
- 19 Blank L, Kimball H, McDonald W, Merino J. Medical professionalism in the new millennium: a physicians' charter 15 months later. *Ann Intern Med* 2002;**138**:839–41.
- 20 Freidson E. *Professionalism Reborn: Theory, Prophecy and Policy*. Cambridge: Polity Press 1994.
- 21 Dana J, Loewenstein G. A social science perspective on gifts to physicians from industry. *JAMA* 2003;**290**:252–5.
- 22 Liaison Committee on Medical Education. *Annual Medical School Questionnaire Part II, 2004–05*. Chicago, Washington, DC: LCME 2005.
- 23 Wagoner NE. Admission to medical school: selecting applicants with the potential for professionalism. In: Stern DT, ed. *Measuring Medical Professionalism*. New York: Oxford University Press 2006;235–63.
- 24 Liaison Committee on Medical Education. *Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs leading to the MD Degree*. Chicago; Washington, DC: LCME 2005.
- 25 Cruess RL, Cruess SR. Teaching professionalism: general principles. *Med Teacher* 2006;**28**:1–4.
- 26 Benbassat J, Bauml R. Enhancing self-awareness in medical students: an overview of teaching approaches. *Acad Med* 2005;**80**:156–61.
- 27 Knowles MS, Holton EF III, Swanson RA. *The Adult Learner: the Definitive Classic in Adult Education and Human Resource Development*, 5th edn. Woburn, Massachusetts: Butterworth-Heinemann 1998.
- 28 Maudsley G, Strivens J. Promoting professional knowledge, experiential learning and critical thinking for medical students. *Med Educ* 2004;**34**:535–44.
- 29 O'Toole TP, Navneet K, Mishra M, Schukart D. Teaching professionalism within a community context: perspectives from a national demonstration project. *Acad Med* 2005;**80**:339–43.
- 30 Accreditation Council for Graduate Medical Education. General Competencies. <http://www.acgme.org/outcome/comp/compFull.asp>. [Accessed 16 February 2006.]
- 31 Haidet P, Kelly P, Chou C. Characterising the patient-centredness of hidden curricula in medical schools: development and validation of a new measure. *Acad Med* 2005;**80**:44–50.
- 32 Hafferty FW, Franks R. The hidden curriculum, ethics teaching and the structure of medical education. *Acad Med* 1994;**69**:861–71.

- 33 Inui TS. *A Flag in the Wind: Educating for Professionalism in Medicine*. Washington, DC: Association of American Medical Colleges 2003.
- 34 Hafferty FW. Beyond curriculum reform: confronting medicine's hidden curriculum. *Acad Med* 1995;**73**:403–7.
- 35 Cohen JJ. The Work Ahead. President's Address at the Annual Meeting of the Association of American Medical Colleges, Washington, DC, 2005.
- 36 Coulehan J. Today's professionalism: engaging the mind but not the heart. *Acad Med* 2005;**80**:892–8.
- 37 Cohen JJ. Our Compact with Tomorrow's Doctors. President's Address at the Annual Meeting of the Association of American Medical Colleges, Washington DC, 2001.
- 38 Association of American Medical Colleges. Compact Between Resident Physicians and Their Teachers. <http://www.aamc.org/meded/residentcompact/>. [Accessed 16 February 2006.]
- 39 Cohen JJ. Forging a New Compact Between Resident Physicians and Their Teachers. <http://www.aamc.org/newsroom/reporter/dec05/word.htm>. [Accessed 16 February 2006.]
- 40 Editorial. Seducing the medical profession. *New York Times*, late edn, 2 February 2006.
- 41 Brennan TA, Rothman DJ, Blank L *et al.* Health industry practices that create conflicts of interest: a policy proposal for academic medical centres. *JAMA* 2006;**295**:429–33.
- 42 Rhodes R. Enriching the white coat ceremony with a module on professional responsibilities. *Acad Med* 2001;**76**:504–5.
- 43 Gold Humanism Honor Society. *A Force for Humanism in Medicine*. Englewood Cliffs, New Jersey: Arnold P. Gold Foundation 2005.
- 44 Cohen JJ. Foreword. In: Stern DT, ed. *Measuring Medical Professionalism*. New York: Oxford University Press 2006;v–viii.
- 45 Veloski JJ, Fields SK, Boex JR, Blank LL. Measuring professionalism: a review of studies with instruments reported in the literature between 1982 and 2002. *Acad Med* 2005;**80**:366–70.
- 46 Stern DT, ed. *Measuring Medical Professionalism*. New York: Oxford University Press 2006.
- 47 Arnold L, Stern DT. Content and context of peer assessment. In: Stern DT, ed. *Measuring Medical Professionalism*. New York: Oxford University Press 2006;15–37.
- 48 Singer P, Robb A, Cohen R, Norman G, Turnbull J. Performance-based assessment of clinical ethics using an objective structured clinical examination. *Acad Med* 1996;**71**:495–8.
- 49 Norcini JJ, Blank LL, Duffy FD, Fortna GS. The mini-CEX – A method for assessing clinical skills. *Ann Intern Med* 2003;**138**:476–81.
- 50 Cruess R, Herold-McIlroy J, Cruess SC, Steinert Y, Ginsburg S. Professionalism mini-evaluation exercise (P-MEX): a tool to evaluate professional behaviour. *Acad Med* 2006;**81**(10) Suppl. (in press).
- 51 American Board of Medical Specialties. *Annual Report of the American Board of Medical Specialties 2005*. Evanston, Illinois: ABMS 2005.
- 52 Papadakis MA, Hodgson CS, Teherani A, Kohatsu ND. Unprofessional behaviour in medical school is associated with subsequent disciplinary action by a state medical board. *Acad Med* 2004;**79**:244–9.
- 53 Papadakis MA, Teherani A, Banch MA, Knettlar TR, Rattner SL, Stern DT, Veloski JJ, Hodgson CS. Disciplinary action by medical schools and prior behaviour in medical school. *N Engl J Med* 2005;**353**:2673–82.
- 54 Kirk LM, Blank LL. Professional behaviour: a learner's permit for licensure. *N Engl J Med* 2005;**353**:2709–11.

Received 8 March 2006; accepted for publication 29 March 2006