

Professionalism in medical education

Sean Hilton*, Lesley Southgate

St. George's, University of London, Cranmer Terrace, London SW17 0RE, UK

Abstract

Medical professionalism in today's society requires the exhibition of a range of qualities deployed in the service of patients, rather than more traditionally defined aspects such as mastery, autonomy and self-regulation. These qualities incorporate demonstrated clinical competence; aspiring to excellence in practice while demonstrating humility and recognition of personal limitations; exercising professional judgement; and maintaining a fiduciary relationship with patients by the earning and maintenance of trust.

This article examines some of the theory underpinning the acquisition of medical professionalism, and considers the implications for educators across the medical education continuum, from undergraduate curricula to revalidation and continuing professional development.

© 2007 Elsevier Ltd. All rights reserved.

1. Introduction

Modern medical professionalism derives from ancient origins, and has evolved over numerous phases of history. The widespread contemporary debate about the role of doctors—and how education, training and regulation of the profession should recognise the views of society—needs to consider the origins and enduring values of the profession.

2. Historical summary

For centuries professions have held a particular niche in society. Medicine is, in part, the modern embodiment of the ancient art of healing—present since the earliest days of civilisation. In emerging Greek civilisation, the roots of Western medicine

can be traced (Porter, 1997; Schon, 1983). Apollo was revered as the God of Healing. His son Aesclepeus who, according to Homer, was a highly skilled wound healer, became the tutelary god of medicine.

Hippocrates (c460–377bc) led Hippocratic medicine, which built on these beliefs, but made itself distinct from other ancient forms of healing by being grounded in natural philosophy rather than supernatural powers—separating medicine from religion. By open and philosophical debate, the principles of Hippocratic medicine were developed—health being equilibrium, and illness being disturbance of it. Careful observation and recording by physicians was encouraged, as was expectant treatment of ills rather than intervention by drugs or surgery. Hippocratic physicians espoused ethical practice—*primum non nocere*—and altruism, both incorporated in the Hippocratic oath, which is still recited today (in derived form) by new graduates in medicine.

*Corresponding author.

E-mail address: shilton@sgul.ac.uk (S. Hilton).

Plato (c428–347bc) developed a series of arguments to describe three functions of human nature—reason, spirit and appetites—located within, respectively, brain, heart and liver. His *Timaeus* was an influential text that gave the physician an important role in promoting health of the mind by restoring the equilibrium of the body. His work emphasised the common ground between what we now view as separate disciplines of ethics, philosophy and medicine.

Aristotle (384–322bc), himself the son of a physician, was a pupil of Plato, and built on his work further by encouraging systematic observation of nature, and experimentation to explain observations. He used animal dissection to propose biomedical theories about anatomical structures, such as circulation, and also discussed aspects of the mind, including sleep, memory and sensation. His writings on judgement and wisdom, in *Nichomachean ethics* (Halverson & Gomez, 2001), constitute a convincing description of professionalism.

In the Roman era, Galen (129–216 AD) was the reference point, and his views and writings dominated Western medicine without serious review until the Renaissance. Galen's prolific writing on medical science, as understood by him and contemporaries created a formidable—if often mistaken—account of the pathophysiology of disease. Galen's views and beliefs held philosophy and medicine as counterparts: the best doctor was also a philosopher, while the unphilosophical healer (the empiric) was like an architect without a plan. A good physician would practise for the love of mankind, while accepting his reward in fame and fortune. The patient's trust was essential in the healing process.

From the 14th century onwards, the major cultural and intellectual developments of the Renaissance spread northwards from the Italian cities. Erasmus was a leader of intellectual thought and development for young scholars and physicians. His reinterpretation of Galen's works included "*The best doctor is also a philosopher*". He and others reinforced the notion of the practice of medicine as a scholarly activity, and the rightful home of the study of medicine (if not its practice) in the universities, along with theology and law.

Over the next few centuries, the predominantly humanistic and value-laden view of medicine came first to be challenged, and eventually dominated by the development of science. Paracelsus (1493–1542) was an early sceptic and iconoclast who challenged the Galenian concepts of qualities, elements and

humours, moving more towards chemistry as the basis for treating illness. Harvey corrected Galen's faulty view of the circulation. New discoveries and theories followed in profusion as the western world's knowledge base exploded through the industrial revolution and the age of enlightenment during 18th–19th Centuries.

The expansion in science's ability to explain natural phenomena led to the philosophy of positivism expressed by Comte (1988) as its three principal doctrines:

1. empirical science is not just a form of knowledge, but the only source of positive knowledge,
2. an intention to cleanse men's minds of mysticism, superstition and pseudo-knowledge,
3. a programme of extending scientific knowledge and technical control to society, making it not only mechanical, geometrical or chemical, but primarily moral and political.

By the late 19th Century, positivism became medicine's dominant philosophy.

According to Schon (1983) 'technical rationality' is the heritage of this positivism. Medicine, a learned profession, originating as such in the mediaeval universities, was refashioned through positivism in a new image of a science-based technique for the preservation of health. Growing industrialisation, and the advance of 'scientific' thinking and beliefs over traditional belief systems such as religion (Menand, 2001) saw the strengthening of the professional class a development seen by Durkheim (1957) as protecting the individual from oppression by the state, or government.

The breathtaking advances of 20th century medicine, exemplified by Le Fanu (1999) in his polemic narrative about the problems facing medicine today only served to strengthen the case for scientific biomedicine as the route to health for all.

Four paradoxes, noted by Le Fanu (1999), are potent drivers for change and reform in modern medical education and training:

- *Disillusioned doctors*: Despite the success and efficacy of modern medicine, doctors find themselves less fulfilled and more dissatisfied than in the past.
- *Worried well*: Despite better health and life expectancy than ever before, the levels of dissatisfaction and health anxiety amongst the population appear to rise steadily.

- *Soaring popularity of 'alternative' medicine*: If modern medicine is so effective, why is this happening?
- *Spiralling costs of health care*: The more we do, the more remains to be done. The costs of this paradox demand a degree of political control over medical decision making.

Against these challenging secular trends, is there still a role for the physician as a professional, and if so how should we define that professionalism?

2.1. Perspectives on professionalism

2.2.1. Professionalism in society

The three original learned professions were law, medicine, and the clergy (Freidson, 1971). Professions have a number of characteristics that distinguish them when considered collectively. Taken individually one or more of these characteristics are possessed by many other social groups. They are:

- a body of specialist knowledge and skills,
- a commitment to high standards of service,
- varying degrees of self-regulation and autonomy,
- moral and ethical standards of behaviour.

Members of professions, both individually and collectively, address a class of problems, complex or 'ill sorted' (King & Kitchener, 1994), for members of society in a contractual way. They lay claim to a specialist body of knowledge, skills and techniques, and they define ways in which members of society approach them when they have problems to be solved. They control the admissions procedures and education and training for their profession.

Traditionally, one of the hallmarks of the professional is moral and ethical practice that puts the interests of their client above their own. A key reward for this 'altruism' is the autonomy and self-regulation that society formerly conceded to professionals. In the past—many have argued—this formed the basis of the implicit 'social contract' between professions and the societies they served. Over the past 50 years, this comfortable status has been challenged increasingly.

Other groups, such as businessmen, tradesmen and technicians possess specialist knowledge and provide services to society, so what demarcates the 'professional knowledge' from the rest? Are there qualitative or quantitative differences? Aris-

totle described human attributes (although not using the term 'professional'), which enabled wisdom or judgement to be expressed for the benefit of individuals (Aristotle, 1976, p. 209; McKeon, 1941):

- *episteme*—the knowledge required for practice,
- *techne*—the skills or craftsmanship required,
- *phronesis*—'prudence' or 'practical wisdom'. This is the application of judgement to address complex problems and conflicting interests. The concept of phronesis is an important one in describing the actions of the effective, mature professional.

Modern writers on professionalism and the nature of professional knowledge have essentially addressed aspects of these attributes (Table 1).

It is generally accepted that professions hold this special expertise, expressed in various forms of opinion, judgement and wisdom. There is more concern, and more controversy about other aspects of 'professionalism' summarised as service, advocacy, moral code and altruism, along with a commitment to high standards. Hafferty, in reviewing academic sociology's interest in professionalism, notes that from the late 19th century, the professions acquired dominance over the work of others as a result of their autonomy (Hafferty, 2003). Altruism became confused with, and in some cases replaced by, self-interest. As far back as the 1930s, Parsons raised the ostensible contradiction between the professions' altruism and self-interest, but felt that the former would always prevail over the latter (Parsons, 1939).

Since the 1970s, however, much of the sociological literature has been highly critical of the professions, with their power and self-interest. Johnson in 1971 defined 'profession' as "a method of controlling work—one in which an occupation... exercises control over its work" (Johnson, 1972). Daniels, in the same year, wrote "The more powerful the professions, the more serious the dangers in concern for public service, and zealotness in promoting the practitioners' interests" (Daniels, 1971). Sociologists began to detail counter-processes such as deprofessionalisation and corporatisation (Hafferty, 2003).

Nevertheless, Freidson (1994) has argued that professionalism remains necessary and desirable for a decent society; that attacks on professionalism have become unbalanced, and no good alternatives

Table 1
Recent writers on aspects of episteme, techne and phronesis

Three components of professional knowledge (Schein, 1973)	<ul style="list-style-type: none"> ● an underlying discipline or basic science component upon which the practice rests, or from which it is developed ● an applied science component from which many of the day to day diagnostic procedures and problem solutions are derived ● a skills and attitudinal component that concerns the actual performance of services to the client, using the underlying basic and applied knowledge
A model of 'technical rationality' (Schon, 1983)	<p>Professionals work by instrumental problem solving made rigorous by the application of scientific theory and technique. The systematic knowledge base of a profession has four essential properties:</p> <ul style="list-style-type: none"> ● Specialised ● Firmly bounded ● Scientific ● Standardised
Four components of the professional's knowledge (Eraut, 1994)	<ul style="list-style-type: none"> ● Propositional knowledge (facts, theories, concepts) ● Personal knowledge (acquired through experience—information, intuitions, interpretations) ● Process knowledge (knowing how to accomplish a task, and this includes meta-processing, or reflection) ● Know-how (intimate knowledge of a system, and how to get things done)

have been proposed. He makes the case for a reborn professionalism within society—

“a professionalism expressed purely as dedication to a complex craft that is of value to others. To liberate it from material self-interest is the most radical way by which professionalism can be reborn.” (Freidson, 1994, p. 10)

3. Medical professionalism

There has been enormous interest and activity regarding medical professionalism in the UK and North America in the last 15 years. Much of the burgeoning literature has been prompted by the perceived politicisation of healthcare; conflicts of interest regarding commercialism and its influence on medical practice and anxieties arising from medical litigation, with the defensiveness and cynicism that this engenders in clinical practice. (Chren & Landerfield, 1994; Department of Health, 1998; Emanuel, 1997; Sullivan, 1999).

All of this threatens to compromise the fiduciary relationship between doctor and patient (Rothman, 2000). ‘Fiduciary’ refers to a relationship based on trust, nowhere better summarised than in the famous 1960s quotation by Sir James Spence, English paediatrician:

“The essential unit of medical practice is that moment in the intimacy of the consulting room

when a patient who is ill, or believes himself to be ill, confides in a doctor who he trusts. This is a consultation, and all else in medicine derives from it.” (Court, 1975)

4. Defining medical professionalism

‘Professional’ and ‘professionalism’ have different meanings for people, and in different contexts. Professionalism in doctors, to some, may indicate no more than punctuality and reliability in attendance; to others it may mean keeping suitably detached from highly emotional situations; to others it may mean a commitment to keeping up to date with evidence-based medicine.

Powerful arguments were made by Swick (2000) for a normative definition of medical professionalism based on observable physician behaviours. These behaviours were adopted by the Association of American Medical Colleges (AAMC) in its projects on incorporation of professionalism into medical student outcomes (Medical Schools Objectives Project Writing Group, 1999), accreditation and re-accreditation processes, and by the American Board of Internal Medicine (ABIM, 2001) in its *Project Professionalism*. And in 1994, the UK Chief Medical Officer, Sir Kenneth Calman identified nine key behaviours, or “values”, that he argued were expected by the public of their doctors (see Box 1) (Calman, 1994).

Cruess (1997) and Cruess, Cruess, and Johnston (1999) have written extensively about recent challenges to the profession of medicine. They distinguish between the ancient role of physician as healer and the more recent development of professionalism in medicine, mainly since the industrial revolution. They argue for the implicit social contract with society, that in recent years—as professional self-interest has seemed to predominate over altruism—society has sought to re-define and make more explicit. The results, seen by physicians as loss of autonomy and respect, have led to widespread loss of morale, and a need for physicians to reassert their professionalism in a renewed social contract with society. Kuczewski (2001) views professionalism in medicine as the embodiment of several issues: medical etiquette; interpersonal communication; medical ethics (relating both to personal practise of the physician, and also treatment decision making); cultural competence and sensitivity; and service to society. He proposed a parsimonious definition of medical professionalism as:

the norms of the relationships in which physicians engage in the care of patients. (Kuczewski, 2001, p. 3)

This definition recognises the centrality (although not exclusivity) of the relationship between physician and patient, and indicates that changing societal norms influence that relationship. Ludmerer (1999a, b), writing on the challenges to professionalism, proposes that medical

professionalism incorporates three essential characteristics:

- expert knowledge,
- self-regulation,
- fiduciary responsibility to place the needs of the patient ahead of the physician's self-interest.

While Cruess (1997) and Swick, Szenas, Danoff, and Whitcomb (1999), and others, emphasise the individual responsibilities placed on the physician, and espoused within their views of professionalism, others (Frankford, Patterson, & Konrad, 2000; Ginsburg, Regehr, & Hatala, 2000; Hoff, 2000; Rothman, 2000) give equal prominence to the setting, context or system of healthcare in which professionals work. Schon, while not writing specifically about medical professionalism had the place of 'reflection' as a central tenet in his seminal work *The Reflective Practitioner* (Schon, 1983). In his terminology, 'technical rationality' is insufficient for professionals to deal with the complex problems that they face in daily practice. Epstein (1999) developed this theme, and proposed the term 'mindfulness' as the logical development of reflective practice. He describes key characteristics of mindfulness (see Box 2).

Box 1
Calman's 'key values' expected of doctors

- high standard of ethics,
- continuing professional development (CPD),
- ability to work in a team,
- concern with health as well as illness,
- patient and public focused,
- concern with clinical standards, outcomes, effectiveness and audit,
- ability to define outcomes,
- interest in change and improvement, research and development,
- ability to communicate,

Box 2
Epstein's characteristics of 'mindful practice'

active observation of oneself, the patient, and the problem,
 'peripheral vision',
 pre-attentive processing,
 critical curiosity,
 courage to see the world as it is rather than as one would have it be,
 willingness to set aside categories and prejudice,
 adoption of a 'beginner's mind',
 humility to tolerate awareness of one's areas of incompetence,
 connection between the knower and the known,
 compassion based on insight,
 presence.

5. Contemporary statements by professional organisations

Professional organisations in North America and Europe have been prominent in defining, promoting and requiring professionalism, or ‘good professional behaviours’.

In the UK, the General Medical Council’s publication *Good Medical Practice* is a statement of the responsibilities of the doctor as a profession (GMC, 2002). It lists 14 ‘Duties of a Doctor, which form the basis for the GMC’s definition of professionalism. In 2002, a combined North American and European Internal Medicine Boards project published the Physician’s Charter—a declaration on medical professionalism requirements for the new millennium (Sox, 2002). It has subsequently been endorsed by over 120 medical organisations and translated into ten languages (Blank, Kimball, McDonald, & Merino, 2003).

In the mid-1990s, the ABIM commissioned Project Professionalism, which sought to define the components of medical professionalism (ABIM, 2001). Professionalism, as the Board has defined it, aspires to:

- altruism,
- accountability,
- excellence,
- duty,
- honor and integrity,
- respect for others.

Their principal focus was on the patient, but they recognised the unique importance of professionalism within the context of relationships between physicians and other health professionals, and between professional organisations.

CANMEDS (1996), as a project of the Royal College of Physicians and Surgeons of Canada delineates a competency framework for successful completion of specialist training and continuing accreditation. It specifies seven roles expected of the competent specialist:

- medical expert/clinical decision-maker,
- communicator,
- collaborator,
- manager,
- health advocate,
- scholar,
- professional.

And, most recently, the Royal College of Physicians of London’s Working Party on Medical Professionalism has defined medical professionalism succinctly as “*a set of values, behaviours and relationships that underpin the trust the public has in doctors.*” (RCP, 2005, p. 14)

6. Our perspective on professionalism: six domains

Throughout these reviews and definitions, six areas, or domains, are recurrent: themes which we will adopt as our framework for professionalism in medical education:

- respect for patients,
- ethical practice,
- reflection/self-awareness,
- responsibility—commitment to excellence/life-long learning,
- teamwork,
- social responsibility.

But any summary of this literature and any definition of medical professionalism must revisit *phronesis*, the Aristotelian concept of ‘practical wisdom’. The need for maturity, experience, taking difficult decisions over complex problems, resolving conflicts of interest are implicit in much of the above, but not sufficiently explicit. *Phronesis* requires high level reflective judgement (King & Kitchener, 1994), and incorporates action in addition to practical wisdom. It arises from experience and reflection on experience and implies that professionalism is a state reached only after a prolonged period of learning, instruction and experience. The period leading up to this may be viewed as ‘proto-professionalism’, and its duration will vary according to an individual’s personal characteristics and the environments in which they learn and work (Hilton & Slotnick, 2005).

7. The origins and acquisition of medical professionalism

We have proposed that good medical professionalism incorporates six domains of professional behaviour. An effective *reflective practitioner* will meet the requirements for self-awareness, responsibility and commitment, and teamwork. *Ethical practice* will include respect for patients and social responsibility, in addition to conforming to a high moral and ethical code of practice.

Also, because professionalism incorporates high-level reflective judgement, *phronesis*, a lengthy period of experience and maturation is necessary. This is consistent with a large body of theoretical knowledge relating to stages of personality development (Erickson, 1963), moral development (Gilligan, 1984; Kohlberg, 1969), and reflective judgement (King & Kitchener, 1994), (see Table 2). The environment shapes these maturational experiences. Slotnick (2001) has described how medical education follows a series of stages, with psychosocial (Maslowian) needs (moving from basic biological needs through to self-actualisation) having to be met at each stage for satisfactory progress to be made (Maslow, 1970).

To meet the rigorous demands of professionalism whether in junior, ‘proto-professional’ stage or in established practice, doctors must aspire to meet their self-actualisation needs. Maslow’s work makes it clear that this will be difficult to achieve unless lower hierarchy needs are also being met. This has implications for medical educators, the environment that they fashion for their trainees, and the ways in which medical professionalism is assessed.

8. Reflective practice

Reflective practice is necessary because without critical review of experience, the mature practitioner will not derive the insights needed to make the kinds of complex and reasoned decisions required for unsupervised clinical practice. Knowledge, skills and competences are necessary, but not sufficient for *phronesis*. Thus, what is required is good quality or effective reflection, which in turn requires the developed meta-skills. Schon observed that true reflective thinking can only be initiated after awareness that a real problem exists and that there is uncertainty about its solution (Dewey, 1997). In other cases, mathematical formulae, logic or rules of play may be sufficient of themselves to derive solutions to problems without reflection. Schon (1983) argued that in the late 20th century, excessive reliance on expert, empirically derived knowledge had become too much of a good thing. Technical rationality—the term he coined to describe this activity—is the heritage of positivism. Professionals work by instrumental problem solving, made rigorous by the application of scientific theory and technique.

Table 2
The reflective judgement model (King & Kitchener, 1994)

Stages 1–3: Pre-reflective thinking	<p><i>Stage 1:</i> Knowledge is seen as absolute and pre-determined. Since knowledge is absolute, controversies do not exist. Beliefs are undifferentiated. Inability to differentiate between theory and evidence</p> <p><i>Stage 2:</i> There is a true reality that can be known with certainty, but not known by everyone. Existence of alternative views is acknowledged but not accepted. Able to relate different concepts to each other in an elementary fashion. Evidence is irrelevant</p> <p><i>Stage 3:</i> In some areas even authorities may not currently have the truth (but will do so at some point in the future). Hence, the understanding of truth, knowledge and evidence remains concrete and situation bound. “In some areas, authorities do not know the truth, and therefore people can believe what they want to believe”. Evidence becomes the harbinger of knowing absolutely in the future</p>
Stages 4, 5: Quasi-reflective thinking	<p><i>Stage 4:</i> Belief that one cannot know with certainty. Justification in problem solving is initially understood as an abstraction. The two abstractions, knowledge and justification, are poorly differentiated. People using stage 4 assumptions do not reason that evidence entails a conclusion—rather they use personal beliefs to choose the evidence to support preconceived beliefs. Considered judgement and unconsidered belief are not fully differentiated</p> <p><i>Stage 5:</i> Since knowledge is filtered through the perceptions of the person making the interpretation, what is known is always limited by the perspectives of the knower. Ability to relate two abstractions. Able to take a more complex view, based on a further understanding of justification. Immersed in balancing one point of view against another, people learn the initial rules of synthesis that will move their reasoning to the next stage</p>
Stages 6, 7: Reflective thinking	<p><i>Stage 6:</i> Knowing is a process that requires “thinking action” on behalf of the knower. Knowledge is uncertain, and must be understood in relation to context and evidence. Conclusions remain limited and situational</p> <p><i>Stage 7:</i> Interpretation of evidence and opinion can be synthesised into epistemologically justifiable conjectures about the nature of the problem under consideration. Knowledge is constructed through critical enquiry. Judgement demonstrates individuality constrained by reason, and a willingness to critique one’s own reason</p>

However, this doctrine is challenged by practice, and practical knowledge. According to positivism, craft and artistry has no lasting place in rigorous, practical knowledge. But complexity, uncertainty, instability, uniqueness and value conflict do not fit easily into a positivist model of technical rationality. This is not to minimise the great achievements of Western medicine in shifting so many medical problems (mainly specific diseases) into sound evidence-based practice. But Schon's case is that there is a price to be paid for technical rationality, and that is manifest when complex or 'ill-sorted' problems present themselves. Berwick, who has done more than most to establish consistency and quality improvement in medical practice, also acknowledges this, and the need for the "*the knowledge and practice that can be harvested from experience, itself reflected upon*" (Berwick, 2005, p. 316).

Thus, one purpose of reflection is to enable us to keep an open, rather than a closed mind to deal with problems that are ill-sorted. By this process, we improve our abilities to deal with complexity and conflicts of interest, as well as consolidating that which we already know and practise (our knowing-in-practice).

King and Kitchener (1994) present a body of theoretical and empirical work to define stages of development towards that high-level reflective judgement, characteristic of the mature professional. They describe seven discrete stages in the development of reflective judgement, and

argue, as with Schon (1983) that true reflective thinking only occurs when people are engaged in thinking about problems that involve real uncertainty.

9. Ethical practice

Ethical practice is manifest in three domains of professional practice: respect for patients, social responsibility, and conformity with a high moral code of practice. It arises from the interactions between individual character, experience/learning and environmental influences

Kohlberg's theory of moral development was influenced by the thinking of Piaget (Piaget & Inhelder, 1969) and Dewey (1997). Both had emphasised that human beings develop philosophically and psychologically in a progressive fashion. Kohlberg's (1969) theory, states that individuals progress in their moral reasoning (i.e. their bases for ethical behaviour) through a series of six identifiable stages, which could be more generally classified into three levels, pre-conventional, conventional and post-conventional (Table 3).

Gilligan (1984) proposed an alternative stage theory of moral development for women, but one that also recognises pre-conventional, conventional and post-conventional stages (p. 33). It is the development through the latter two that is of relevance to the ethical practice of medical professionalism.

Table 3
Kohlberg's stages of moral development

Level	Stage	Social orientation	Characteristics
Pre-conventional (<i>elementary school level</i>)	1	Obedience and punishment	Behaves according to socially acceptable norms because they are told to do so by some authority figure (e.g., parent or teacher). This obedience is compelled by the threat or application of punishment
	2	Individualism, instrumentalism and exchange	Incorporates a view that right behaviour means acting in one's own best interests
Conventional (<i>generally found in society</i>)	3	"Good boy/girl"	Exhibits an attitude which seeks to do what will gain the approval of others
	4	Law and order	Oriented to abiding by the law and responding to the obligations of duty
Post-conventional (<i>not reached by the majority of adults</i>)	5	Social contract	Shows an understanding of social mutuality and a genuine interest in the welfare of other
	6	Principled conscience	Based on respect for universal principle and the demands of individual conscience

9.1. A model to describe acquisition of medical professionalism

Our view of medical professionalism, therefore, is that it is a state acquired over a prolonged period of time involving emotional and moral maturation as well as cognitive developments. During that period of acquisition, the medical student or junior doctor is ‘proto-professional’ (Hilton & Slotnick, 2005). This is not meant to imply that proto-professionals may not, or should not, behave ‘professionally’, but that their maturation and experience is incomplete. This has important implications for assessment (Ginsburg et al., 2000). The main components are reflective practice and ethical practice. Building on these, we reason there are definable stages in the development of medical professionalism along the medical education continuum.

We suggest four of these: junior medical student; senior medical student; junior physician, and mature physician. Stages 1–3 describe proto-professionals, and stage 4 indicates acquisition of professionalism. In proposing a stages approach to acquiring professionalism, we acknowledge that many theorists are dubious or critical about the validity of discrete stages to describe a continuum that is endlessly variable between individuals. We concede a lack of empirical evidence, only direct observation and inductive reasoning to suggest the progression in thinking illustrated in Table 4. It is also the case that students enter medicine at different stages of moral and psychosocial development, particularly in schools where graduate or mature entry is the norm. In these cases, it would be inappropriate to equate junior medical student status to earlier levels of development in the other models.

The process is summarised diagrammatically in Fig. 1. The acquisition of medical professionalism is depicted as two opposing processes—attainment and attrition. In the process of attainment, the practitioner moves from naïveté on entry to medical school to phronesis. The arrows in the diagram represent positive influences that enhance maturation, such as effective learning strategies and positive role models. The attrition process acts as a counter-current, moving individuals from high idealism and commitment on entry to, at worst, demotivation and cynicism. The arrows here represent those negative influences such as inappropriate curricular approaches, negative role models, negative aspects of the working environment often

referred to as the ‘hidden curriculum’ (Hafferty, 1998).

Current risks for medical education and training are that the attrition factors in the environment are more pervasive than in the past, and that significant improvements in curricula and training programmes may still be outweighed by them.

9.2. The medical education continuum

More than at any time in the past, medical education is now viewed as a continuum that begins with undergraduate education but has no end, beyond retirement. Lifelong learning has strong currency throughout society, and the practice of medicine is no exception. The trend to emphasise professionalism as the foundation for medical practice is presently reflected in the UK by the integration of *Good Medical Practice* into every element of medical education, training and continuing professional development (CPD). The guidance from the General Medical Council addresses the six domains of professionalism that we have proposed, and forms the basis for evidence for entry to the UK register, for remaining on that register, and on rare occasions, for removal of failing practitioners from it (Southgate et al. (2001)). It is at the heart of the undergraduate curriculum and medical schools are inspected by the Council against standards based on it. It forms one dimension of the blueprint for the workplace assessments for the first two postgraduate years (PMETB, 2006), the criteria for entry to the specialist register by any route address every aspect of the guidance and evidence for revalidation (relicensure) must be presented to ensure continued fitness to practice under each of the duties of a doctor (Cunningham & Southgate, 2002).

9.2.1. Undergraduate

Prominent themes in the literature concerning undergraduate medical education include:

- instilling professional values,
- humanism and ethical practice,
- encouraging the development of reflective judgement,
- addressing the damaging effects of the hidden curriculum.

Aspects of professionalism may be taught in the classroom or in the clinical school environment, but

Table 4
Stages of proto-professionalism in acquisition of professionalism

Levels of episteme E, techné T, and phronesis P	Kohlberg's stages of moral development	Stages of reflective judgement (King/Kitchener)	Clinical example: 42-year-old patient continues to smoke despite recurrent bronchitis
1. Junior medical students E+T Are likely to be in Erikson's identity-role confusion, Kohlberg's need for approval and awareness of rules and duty; and be at a pre-reflective thinking stage in King and Kitchener's epistemology of practice. Their day to day learning is building, in Aristotle's terms, <i>episteme</i> and some <i>techné</i>	3, 4 <i>Stage 3: Seeking approval</i> <i>Stage 4: Law, order, duty</i>	2, 4 <i>Stage 2/Stage 3: Pre-reflective thinking</i>	Protopro 1: "The experts know smoking is damaging him. The man's a fool"
2. Senior medical students E+T Are likely to have undergone spurts in their cognitive development, so that they have progressed to higher reflective judgment levels. Their increasing experience of the healthcare environment moves them towards Kohlberg's social contract stage. They continue to build episteme and techné—knowledge and skills required for practice	4, 5 <i>Stage 5: Social contract</i>	4, 5 <i>Stage 4: Quasi-reflective thinking</i>	Protopro 2: "There is little doubt that smoking is damaging him. He is no fool, so other pressures mean he keeps smoking—or he is addicted"
3. Junior physicians E+T+P Have made the leap from student to doctor. The knowledge and skills base is accommodated to the requirements of clinical practice, and phronesis is developing. Interactions with patients should be more advanced as a result of higher level reflective judgment and moral and psychosocial development. Ironically this is a phase when demands of the working environment may produce a functional level well below the person's optimal level of development—"surviving the system"	5, 6 <i>Stage 6: Principled conscience</i>	6 <i>Stage 6: Reflective thinking</i>	Protopro 3: "The evidence for harmful effects of smoking is overwhelming. There are social pressures or addiction issues to be addressed before he will quit. I had better 'read him his rights'"
4. Mature physicians E+T+P Their moral and reflective judgement development is maximal, and they are acquiring phronesis, as exemplified in the clinical scenario. For the majority attainment of this stage broadly equates to completion of higher training, and commencement of unsupervised practice. Nevertheless, development continues as the state of professionalism must be maintained. The risk of sub-optimal development or subsequent decay is increased by hostile, stressful environments and life events. Maladaptation through this stage may lead to overextension (Erikson's term) expressed as poor performance professionally	5, 6 <i>Stage 6: Principled conscience</i>	7 <i>Stage 6: Reflective thinking</i>	Professional 4: "Smoking cessation is a complex matter—balancing future longevity against current enjoyment. I need to help this patient to make his own decision by presenting him with clear information and choices. I have a duty to advise him, but also respect his autonomy. I need to revise my approach to this problem"

essentially, as with all learning, professionalism can only be learnt by the individual.

Albenese (2000) has commented on the decline and fall of humanism in medical education, reinforcing the point that in general medical students set out with a high degree of compassion for patients, and a

concern to relate effectively to them. However, the medical school and health care environments are largely responsible for decreasing humanism (Moore, Block, Briggs Style, & Mitchell, 1994).

Hafferty (1998, 2002, 2003) and Hafferty and Franks (1994) have written extensively on the

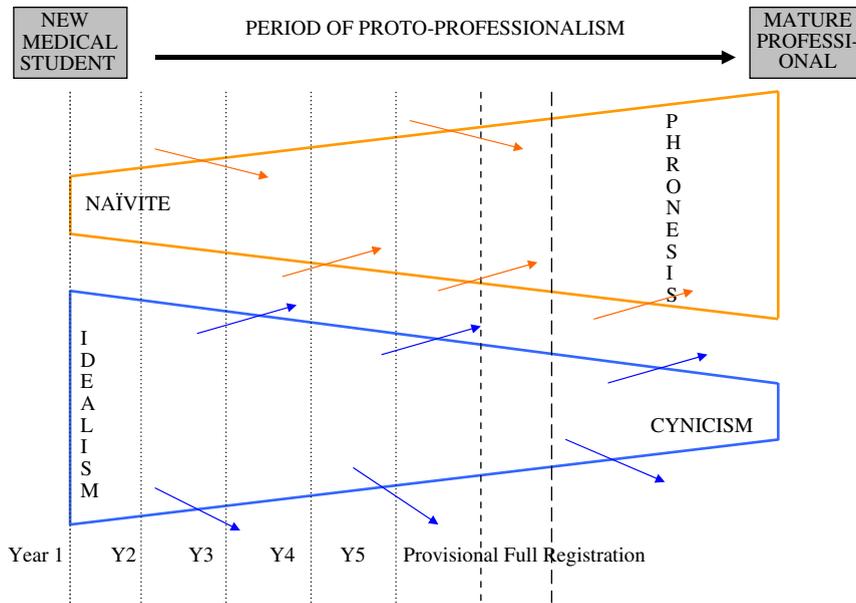


Fig. 1. Proto-professionalism—a model to describe influences on development of professionalism from medical student to mature professional.

‘hidden curriculum, and its (usually) negative effects on the development of professionalism in previously committed, idealistic students. Loss of empathy and humanism on progressing through the medical course has been described by others (Moore et al., 1994).

There is a good deal of evidence and opinion to suggest that professionalism in context is what will make a positive impact on patient care. Adverse effects of informal, hidden curriculum, unacceptable changes in working environment are all working against this. Solutions are to be found in small communities working in context with mutual respect and a wish to improve patient care. Swick et al. (1999) surveyed US medical schools about inclusion of professionalism issues in their curricula. Almost all included some formal instruction related to professionalism, although only just over half had explicit approaches to assessing it, and fewer conducted staff development activities in this area.

Cruess (1997) and Cruess et al. (1999) have argued forcibly that professionalism must be taught, and that wide faculty involvement in the process is essential (Steinert, Cruess, Cruess, & Snell, 2005). Epstein and Hundert (2002) and Novack, Epstein, and Paulsen (1999) describe a process of continuous curriculum development, in which professionalism is fostered by integration of seven dimensions of professional competence with ongoing assessments.

While Wear and Castellani (2000) have argued for a broadening of the undergraduate curriculum that “better prepares graduates” to deal:

- scientifically—with the pathophysiology of illness,
- astutely—with language and communication issues,
- knowledgeably—with biases in decision making (their own, plus that of colleagues and patients),
- politically—with how services are organised and accessed,
- ethically—with moral ambiguities in medicine,
- empathically—with the experience of illness across differences in race, gender and class.

Papadakis, Hodgson, Teherani, and Kohatsu (1999, 2004) and Teherani, Hodgson, Banach, and Papadakis (2005) in California, have highlighted a strong correlation between unsatisfactory behaviours on record at medical school and subsequent disciplinary actions by state medical boards. They also have reported on 4 years experience with a system of ‘academic probation’ for students receiving two or more adverse clerkship reports.

Ginsburg et al. (2000) reviewed assessment of professionalism and argue that describing physicians and students as ‘unprofessional’ is less helpful than identifying missing or unsatisfactory

‘professional behaviours’ that may be addressed individually. Assessment of professionalism should incorporate three components:

- consideration of the contexts/environments in which lapses occur,
- conflicts that leads to such lapses,
- reasons that students/residents make the choices they make to resolve conflicts.

They have reported on further work to evaluate attempts by final year medical students to describe how they resolved personal conflicts in the light of lapses in professional behaviours by colleagues or teachers (Ginsburg, Regehr, & Lingard, 2003). Gordon (2003a) has published a positive evaluation of the assessment approach to personal and professional development (PPD) in the first year of the Sydney course—this is based on portfolio assessment and interviews and proposed a new framework for the facilitation of students’ PPD (Gordon, 2003b). Gordon’s framework is based on the impact of several factors on the cognitive, affective and meta-cognitive processes in learning:

- education,
- feedback,
- rewards and incentives,
- disincentives and penalties,
- participation.

There is much interest in the use of portfolios as an assessment and/or developmental tool to foster professionalism. Driessen, van Tartwijk, van der Vleuten, and Vermunt (2003) reported on use of portfolios in the early undergraduate years at Maastricht. The rationale for their curriculum is that the combination of ‘authentic learning’ with theoretical instruction should better enable students to relate theory to practice. The express purpose of using portfolios in the early years of their course is to develop the students’ reflective ability, and this approach is being adopted by numerous medical schools in the UK.

9.2.2. Postgraduate training

In many countries, the approach to postgraduate training has moved from specified time spent in specialist accredited training posts allied with specialist knowledge base, to a system of high level competencies and educational outcomes. In the USA, the six competencies project of the Accred-

itation Committee on Graduate Medical Education (ACGME) has led the way. In 1997, the ACGME moved towards an educational outcomes approach to accreditation. Six outcomes have been described by the project, and these are now accepted by all boards falling within the ABMS membership:

- patient care,
- medical knowledge,
- practice-based learning and improvement, and
- interpersonal and communication skills,
- professionalism,
- systems-based practice.

Measures for assessment of professionalism in residents need to be developed at three levels: individual, programme and institutional. For individual assessment, they encourage these to be longitudinal, and predominantly formative, requiring regular feedback from supervisors and mentors. Instruments preferred are 360° evaluation and portfolios.

Postgraduate training in the UK is also presently undergoing radical reform with an emphasis on achieving competencies rather than training for a defined length of time. But there is widespread recognition that competencies must not be narrowly defined, rather that specialist training will be based on curricula that pay attention to the development of professionalism at the same time as the knowledge and skills essential for specialist practice Modernising Medical Careers. This has required a different approach to assessment programmes, which will now involve multi-source feedback from peers and patients, direct observation of encounters with patients, and the use of a national portfolio. Together these methods will include formal assessments of the domains of professionalism. Doctors with problems in these areas will not readily progress to specialist certification.

9.2.3. Continuing professional development (CPD)

In the United Kingdom, the introduction of revalidation for all registered practitioners represents a new era in ensuring that doctors remain fit to practise throughout their careers. The initiative from the General Medical Council coincided with loss of public confidence from high profile cases of medical criminality and negligence which received world-wide attention. The programme is now required by law, but the details of how it will be implemented are not yet finalised. However, there is

no controversy about the central role of *Good Medical Practice* (Southgate et al., 1999) in determining the scope and depth of the evidence that every practitioner will have to provide to demonstrate continued fitness to practise. This approach will inevitably have much in common with developments in other countries.

In the USA, recertification of specialists is being transformed through the Maintenance of Certification (MOC) process (Brennan, 2004). This has been described as the mechanism for “rebuilding of trust” between physicians and patients. There are four components of MOC:

- professional standing (licensure),
- lifelong learning (LLL) and self-assessment,
- cognitive expertise (by examination),
- practice-based learning and improvement (practice performance assessment).

Life-long learning comprises short-term goals (credit based on sustainable achievement e.g. knowledge) and long-term goals (improved patient outcomes). Southgate and Dauphinee (1998) have compared developments in CPD in the UK and Canada. A Canadian example of professionalism within CPD is physician achievement review (PAR) (Hall, Violato, & Lewkonja, 1999; Parboosingh, 2002). The PAR is an initiative from the Alberta College of Physicians and Surgeons. It is designed to provide doctors with information about their medical practice through the eyes of those they work with and serve.

The demonstration of professionalism has become central to the demonstration of fitness to practise. The health care systems are different, and the relative power of the stakeholders varies, but all of them have in common the modern expectations of patients, the public and society, that doctors hold and act in accordance with values that enable patients to trust them.

10. Conclusions

This paper has argued for a definition of medical professionalism that is broadly based across six domains, and is predicated on the acquisition of *phronesis* as a defining feature. Using this, professionals are able to address complex problems with knowledge, competence, judgement and compassion. *Current societal change is re-shaping the role of the professional in important ways. Some of this*

re-shaping may threaten acquisition and maintenance of phronesis. The imperative for medical education, at all stages of a career, is to highlight, foster and sustain the centrality of professionalism in medical practice, and to develop and maintain appropriate assessment of it.

Reference

- Albenese, M. (2000). The decline and fall of humanism in medical education (Editorial). *Medical Education*, 34, 596–597.
- American Board of Internal Medicine. (2001). *Project professionalism*. Philadelphia, PA.
- Aristotle. (1976) (Tr. Thomson JAK). London: Penguin.
- Berwick, D. (2005). Broadening the view of evidence based medicine. *Quality and Safety in Health Care*, 14, 315–316.
- Blank, L., Kimball, H., McDonald, W., & Merino, J. (2003). Medical professionalism in the new millennium: A physician charter 15 months later. *Annals of Internal Medicine*, 138(10), 839–841.
- Brennan, M. G. (2004). The role of physician speciality board certification status in the quality movement. *Journal of the American Medical Association*, 292, 1038–1043.
- Calman, K. (1994). The profession of medicine. *British Medical Journal*, 309, 1140–1143.
- CanMEDS 200 Project Group. (1996). *Skills for the new millennium: Report of the societal needs working group 10*. Royal College of Physicians and Surgeon of Canada.
- Chren, M. M., & Landerfield, C. S. (1994). Physicians' behaviour and their interaction with drug companies: A controlled study of physicians who requested controlled additions to a hospital drugs formulary. *Journal of the American Medical Association*, 271, 684–689.
- Comte, A. (1988) (Tr. Ferre F). Indianapolis: Hackett Publishing.
- Court, D. (1975). Sir James Spence. *Archive of Diseases in Childhood*, 50(2), 85–89.
- Cruess, R. (1997). Professionalism must be taught. *British Medical Journal*, 315, 1674–1677.
- Cruess, R., Cruess, S., & Johnston, S. E. (1999). Renewing professionalism: An opportunity for medicine. *Academic Medicine*, 74(8), 878–884.
- Cunningham, J., & Southgate, L. (2002). Relicensure, recertification and practice based assessment. In G. R. Norman (Ed.), *International handbook of research in medical education*. London: Kluwer Academic Publishers.
- Daniels, A. K. (1971). How free should professionals be? In E. Friedson (Ed.), *The professions and their prospects*. Beverley Hills, CA: Sage Publications.
- Department of Health. (1998). *The new NHS: Modern, dependable*. London: Department of Health.
- Dewey, J. (1997). *How we think*. Mineola, NY: Dover Publications Inc.
- Driessen, E. W., van Tartwijk, J., van der Vleuten, C. P. M., & Vermunt, J. D. (2003). Use of portfolios in early undergraduate training. *Medical Teacher*, 25(1), 18–23.
- Durkheim, E. (1957). *Professional ethics and civic morals*. London: Routledge and Kegan Paul.
- Emanuel, L. L. (1997). Bringing market medicine to professional account. *Journal of the American Medical Association*, 277, 1004–1005.

- Epstein, R. M. (1999). Mindful practice. *Journal of the American Medical Association*, 282(9), 833–839.
- Epstein, R. M., & Hundert, E. M. (2002). Defining and assessing professional competence. *Journal of the American Medical Association*, 287(2), 226–335.
- Eraut, M. (1994). *Developing professional knowledge and competence*. London: Falmer Press.
- Erickson, E. H. (1963). *Childhood and society*. New York: Norton.
- Frankford, D. M., Patterson, M. A., & Konrad, T. R. (2000). Transforming practice organisations to foster lifelong learning and commitment to medical professionalism. *Academic Medicine*, 75(7), 708–717.
- Freidson, E. (Ed.). (1971). *The professions and their prospects*. Beverly Hills, CA: Sage Publications.
- Freidson, E. (1994). *Professionalism reborn: Theory, prophesy and policy*. Cambridge, MA: Polity Press.
- General Medical Council. (2002). *Good medical practice*. London: GMC.
- Gilligan, C. (1984). *In a different voice*. Cambridge, MA: Harvard University Press.
- Ginsburg, S., Regehr, G., & Hatala, R. (2000). Context, conflict and resolution: A new conceptual framework for evaluating professionalism. *Academic Medicine*, 75(10 Supp), S82–S87.
- Ginsburg, S., Regehr, G., & Lingard, L. (2003). To be and not to be: The paradox of the emerging professional stance. *Medical Education*, 37(4), 350–358.
- Gordon, J. (2003a). Assessing students' personal and professional development using portfolios and interviews. *Medical Education*, 37(4), 335–340.
- Gordon, J. (2003b). Fostering students' personal and professional development in medicine: A new framework for PPD. *Medical Education*, 37(4), 341–349.
- Hafferty, F. W. (1998). Beyond curriculum reform: Confronting medicine's hidden curriculum. *Academic Medicine*, 73, 403–407.
- Hafferty, F. W. (2002). What medical students know about professionalism. *The Mount Sinai Journal of Medicine*, 69(6), 385–397.
- Hafferty, F. W. (2003). In search of a lost cord. In D. Wear, & J. Bickel (Eds.), *Educating for professionalism* (pp. 11–35). Iowa: University of Iowa.
- Hafferty, F. W., & Franks, R. (1994). The hidden curriculum, ethics teaching and the structure of medical education. *Academic Medicine*, 69, 861–871.
- Hall, W., Violato, C., & Lewkonina, R. (1999). Assessment of physician performance in Alberta: The physician achievement review. *Canadian Medical Association Journal*, 161, 52–57.
- Halverson, R., & Gomez, L. (2001). Phronesis and design: How practical wisdom is disclosed through collaborative design. In *Paper presented at the 2001 American Educational Research Association general meeting*, SeattleWA <<http://www.letu-s.org/PDF/Halverson>>.
- Hilton, S., & Slotnick, H. B. (2005). Proto-professionalism: How professionalism occurs across the continuum of medical education. *Medical Education*, 39(1), 58–65.
- Hoff, T. (2000). Medical professionalism in society. *New England Journal of Medicine*, 342(17), 1289.
- Johnson, T. (1972). *Professions and power*. London: Macmillan.
- King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgement*. San Francisco, CA: Jossey-Bass.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialisation. In D. A. Goslin (Ed.), *Handbook of socialisation theory and research* (pp. 347–480). Chicago: Rand McNally.
- Kuczewski, M.G. (2001). Developing competency in professionalism: The potential and the pitfalls. *Bulletin of the ACGME*. (October 2001) 3–6. <<http://www.acgme.org/acWebsite/bulletin/bulletin1001.pdf>>.
- Le Fanu, J. (1999). *The rise and fall of modern medicine*. London: Abacus.
- Ludmerer, K. (1999a). Instilling professionalism in medical education (Editorial). *Journal of the American Medical Association*, 282(9), 881–882.
- Ludmerer, K. (1999b). *Time to heal* (1st ed.). New York: Oxford University Press.
- Maslow, A. (1970). *Motivation and personality*. New York: Harper and Row.
- McKeon, R. (Ed.). (1941). *The basic works of Aristotle*. New York: McGraw Hill.
- Medical Schools Objectives Project Writing Group. (1999). Learning objectives for medical student education—guidelines for medical schools: Report 1 of the medical schools objectives project. *Academic Medicine*, 74, 13–18.
- Menand, L. (2001). *The metaphysical club*. London: Harper Collins.
- Moore, G. T., Block, S. D., Briggs Style, C., & Mitchell, R. (1994). The influence of the new pathway. *Academic Medicine*, 69(12), 983–989.
- Novack, D. H., Epstein, R. M., & Paulsen, R. H. (1999). Toward creating physician-healers: Fostering medical students' self-awareness, personal growth, and wellbeing. *Academic Medicine*, 74(5), 516–520.
- Papadakis, M. A., Hodgson, C. S., Teherani, A., & Kohatsu, N. D. (2004). Unprofessional behavior in medical school is associated with subsequent disciplinary action by a State Medical Board. *Academic Medicine*, 79(3), 244–249.
- Papadakis, M. A., Osborn, E. H., Cooke, M., & Healy, K. (1999). A strategy for the detection and evaluation of unprofessional behavior in medical students. *Academic Medicine*, 74, 980–990.
- Parboosingh, J. T. (2002). Physician communities of practice: Where learning and practice are inseparable. *Journal of Continuing Education for Health Professionals*, 22(4), 230–236.
- Parsons, T. (1939). The professions and social structures. *Social Forces*, 17, 457–467.
- Piaget, J., & Inhelder, B. (1969). *The psychology of the child*. New York: Basic Books.
- PMETB. (2006). Principles for an assessment system for postgraduate medical training 2005 <www.pmetb.org.uk/pmetb/publications/> (Accessed 05/01/06).
- Porter, R. (1997). *The greatest benefit to mankind*. London: Harper Collins.
- Rothman, D. J. (2000). Medical professionalism—focusing on the real issues. *New England Journal of Medicine*, 342(17), 1284–1286.
- Royal College of Physicians. (2005). Doctors in society: Medical professionalism in a changing world. In: *Report of a working party of the Royal College of Physicians of London*. London: RCP.
- Schein, E. (1973). *Professional Education*. New York: McGraw Hill.
- Schon, D. A. (1983). *The reflective practitioner* (2nd ed.). Aldershot: Arena.
- Slotnick, H. B. (2001). How doctors learn: Education and learning across the medical-school-to-practice trajectory. *Academic Medicine*, 76(10), 1013–1026.

- Southgate, L., Cox, J., David, T., Hatch, D., Howes, A., & Johnson, N. (2001). The assessment of poorly performing doctors: The development of the assessment programmes for the General Medical Council's Performance Procedures. *Medical Education*, 35(Suppl. 1), 2–8.
- Southgate, L., & Dauphinee, D. (1998). Maintaining standards in British and Canadian medicine: The developing role of the regulatory body. *British Medical Journal*, 316(7132), 697–700.
- Sox, H. (Ed.). (2002). Medical professionalism in the new millennium: A physician charter. *Annals of Internal Medicine*, 136(3), 243–246.
- Steinert, Y., Cruess, S., Cruess, R., & Snell, L. (2005). Faculty development for teaching and evaluating professionalism: From programme design to curriculum change. *Medical Education*, 39(2), 127–136.
- Sullivan, W. (1999). What is left of professionalism after managed care? *Hastings Centre Reports*, 29, 7–13.
- Swick, H. (2000). Towards a normative definition of medical professionalism. *Academic Medicine*, 75(6), 77–81.
- Swick, H., Szenas, P., Danoff, D., & Whitcomb, M. E. (1999). Teaching professionalism in undergraduate medical education. *Journal of the American Medical Association*, 282(9), 830–832.
- Teherani, A., Hodgson, C. S., Banach, M., & Papadakis, M. (2005). Domains of unprofessional behavior during medical school associated with future disciplinary action by a State Medical Board. *Academic Medicine*, 80, S17–S20.
- Wear, D., & Castellani, B. (2000). The development of professionalism—Curriculum matters. *Academic Medicine*, 75(6), 602–611.