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AMEE GUIDE

Integrating professionalism into the curriculum: AMEE Guide No. 61

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Abstract

Professional values and behaviours are intrinsic to all medical practice, yet remain one of the most difficult subjects to integrate explicitly into a curriculum. Professionalism for the twenty-first century raises challenges not only to adapting the course to changing societal values but also for instilling skills of ongoing self-directed continuous development in trainees for future revalidation. This Guide is based on the contemporary available literature and focuses on instilling Professionalism positively into both undergraduate and postgraduate training deliberately avoiding the more negative aspects of Fitness to Practise. The literature on Professionalism is extensive. An evidence-based approach has been taken throughout. We have selected only some of the available publications to offer practical advice. Comprehensive reviews are available elsewhere (van Mook et al. 2009a–g). This Guide takes a structured stepwise approach and sequentially addresses: (i) agreeing an institutional definition, (ii) structuring the curriculum to integrate learning across all years, (iii) suggesting learning models, (iv) harnessing the impact of the formal, informal and hidden curricula and (v) assessing the learning. Finally, a few well-evaluated case studies for both teaching and assessment have been selected to illustrate our recommendations.

Introduction

Professionalism has been recognised for centuries as fundamental to medical practice, yet it has remained one of the most intangible and difficult areas within both undergraduate and postgraduate training. As far back as Ancient Greece, the Hippocratic Oath gave witness to the importance paid to a doctor's professional attitudes and behaviour. Yet, though well recognised as intrinsic to practice, integrating professionalism explicitly into the curriculum to make its importance both explicit to students and trainees and a tangible measurable outcome remains challenging. Perhaps not surprisingly, identifying students who demonstrate unprofessional behaviour and are not deemed Fit to Practise has over the years become an increasing focus within medical schools. This gained even more momentum when Papadakis et al. (2004) demonstrated a possible link between unprofessional behaviour in medical school and subsequent practice. Thus, professionalism within the curriculum risks assuming a negative perspective. Failure to demonstrate appropriate attitudes and to improve behaviour despite feedback and remediation is ultimately punished. The reverse potential, i.e. acknowledging and rewarding high standards of professionalism in students and trainees, is lost. The opportunity to place a positive value on this key area of the curriculum risks being overlooked. We need more robust systems to ensure that understanding, learning and valuing Professionalism gains a high and explicit status within medical training. Positive acknowledgement of achievements and excellence in this subject area is comparably essential. This needs to be seen by students as having greater emphasis than merely addressing unprofessional behaviour. We have therefore chosen to focus this Guide on integrating these positive aspects of Professionalism into the curriculum and not to place emphasis on Fitness to Practise and unprofessional behaviour.

Practice points

- Professionalism reflects societal values. An institutional definition must be agreed.
- Situated learning in the early years is not enough. Learning must be supported in the workplace.
- Role models are powerful. Both positive and negative behaviour will be seen.
- Reflection on action and mentoring are important to ensure appropriate learning is achieved.
- Assessment must be integrated across the course using multiple tools.

We highlight three challenges. First, it is important to instil and nurture the development of the personal qualities, values, attitudes and behaviours which are fundamental to health care in current society. As this Guide highlights, there remains a demonstrable lack of consensus on reaching a culturally appropriate global definition. Core values are shared but diverse changing societal values inevitably influence institutional understanding and hence the identification of the desired educational outcomes. Consensus must be reached within individual institutions on what is to be learned and assessed. These institutional values should be instilled in and

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reflected by all those delivering the curriculum to guard against conflicting messages to students.

Second, continuous professional development is key to medical practice. We must both ensure that students understand the importance and relevance of these professional concepts and assess whether students can demonstrate these qualities on exiting from training. Students must be supported in learning the skills to continue to develop their professional identity for the rest of their career. This is intrinsic to learning throughout the curriculum. Instilling values of self-directed responsibility for learning is essential. This presents an additional strong argument for integration.

Finally, not only the learning and teaching but also the assessment of professionalism and professional behaviour must be carefully constructed to enable students and faculty to understand both the origins of professionalism and the responsibilities of the professional. Measuring professional learning outcomes remains difficult. It is essentially though that assessment of professionalism mirrors the curriculum intent.

This Guide presents a framework for ensuring Professionalism is effectively integrated into a curriculum in a positive way. Throughout we have aimed to address the challenges which face educationalists in making Professionalism an integral and explicit part of training and subsequent practice.

Defining professionalism

Step 1: Agree on a definition for your own institution

The first task when integrating professionalism into the curriculum is to agree on a definition acceptable to the institution. When searching the literature, it is clear that over the centuries professionalism has been interpreted in differing ways. There is still a lack of complete consensus. Within your institution, setting the values intrinsic to professionalism in the context of the changing societal pressures of the twenty-first century is essential. We present here a short summary of existing views.

A profession can be defined as 'a vocation with a body of knowledge and skills that is put into service for the good of others and the welfare of society'. If we accept this definition then medicine is an archetypal profession (Arnold 2002; Bloom 2002). Society has traditionally granted autonomy to the medical profession based on the understanding that doctors will put the welfare of the patients before their own and that the profession is self-regulated by a code of ethics (Cruess & Cruess 1997; Irvine 1997; Arnold & Stern 2006). This code of ethics dates back to the Hippocratic Oath. Over the centuries, different definitions have emerged across a range of cultures (Sohl & Bassford 1986; Arnold 2002; General Medical Council 2009; van Mook et al. 2009a).

Important contemporary societal factors now influence our understanding of professionalism. Public perceptions of the role of the doctor have changed. This has been reflected in an increasing focus in the media on the behaviour and role of health care practitioners (van Mook et al. 2009b). The rapid expansion of medical knowledge and skills, the revolution in information technology, patient-centred care and multidisciplinary teamwork, all challenge the power originally held by doctors. At the same time, profound changes have taken place within the workforce itself with increasing feminisation of medicine, reduction in working hours and changes in doctors' attitudes to their vocation as more emphasis is placed on the quality of life outside work; all these impact on the original understanding of medicine as a vocation (Sohl & Bassford 1986; Emanuel & Emanuel 1996; Cruess & Cruess 1997; Irvine 1997; Pellegrino & Relman 1999; Wynia et al. 1999; Bloom 2002; van Mook et al. 2009b). In recent years a large number of medical organisations across the world have initiated projects in this area resulting in some commonality and some diversity of opinion.

As a result of these changes, in the 1980s the American Board of Internal Medicine (ABIM) started to focus on the humanitarian aspects of a doctor's work. This resulted in Project Professionalism a decade later. The ABIM attempted to spell out what professionalism means to modern society. They identified key elements: altruism, accountability, duty, excellence, honour, integrity and respect for others (American Board of Internal Medicine 1995; Project Medical Professionalism 2002). The move was influential. Medical schools became increasingly aware that professionalism should have an explicit place in the curriculum. A study in the US in 2002 reported that approximately 50% of medical schools have identified relevant elements of professionalism and written criteria for their assessment (Arnold 2002). Progress is now such that almost all 23 UK medical schools in 2006 reported the existence of attitudinal objectives (Stephenson et al. 2006), a significant change.

Yet, to date there is no common understanding of what the term professionalism actually means. There is a significant variation in definitions across the world (van Mook et al. 2009b). The North American approach views professionalism as a mainly theoretical construct, described in abstract idealistic terms, mirroring character traits rather than observable behaviours (van Mook et al. 2009b). Common elements are altruism, respect for others, honour, integrity, ethical and moral standards, accountability, excellence and duty. These terms are easily identifiable and difficult to challenge but are not very concrete or specific. They do not translate into tangible measurable learning outcomes. In contrast, a move to frame professionalism as observable behaviours from which norms and values can be visualised stems from the Netherlands. This offers advantages for assessment (van Luijk 2005; van Mook et al. 2009b). The complexity of the relationship between external professional behaviour and internal attitudinal values is however poorly understood, and remains a high priority for research.

Despite these differences, consensus is emerging. The European Federation of Internal Medicine (EFIM), the American College of Physicians and American Society of Internal Medicine (ACP-ASIM) Foundation and the American Board of Internal Medicine (ABIM) simultaneously published comparable views on professionalism in a 'Physician's charter on professionalism' in 2002 (Project Medical Professionalism 2002). The charter provides an ethical, educational and practical framework for professionalism to guide physicians

Table 1. Set of professional responsibilities defined in the Physicians' charter on professionalism (Project Medical Professionalism 2002).

Number	Commitment	Actions including, amongst others
1	Professional competence	Life long learning to maintain medical knowledge and skills
2	Honesty with patients	Complete and honest information, including reporting of medical error
3	Patients' confidentiality	Disclosure of patient's information
4	Maintaining appropriate relationships with patients	Avoid sexual advances, financial gain
5	Improving quality of care	Reducing medical error and increase patient safety, optimize outcome
6	Just distribution of finite resources	Wise and cost-effective management of limited clinical resources
7	Scientific knowledge	Promote research, create new knowledge
8	Maintain trust by managing conflicts of interest	Recognise, disclose and deal with conflicts of interest
9	Professional responsibilities	Collaborate respectfully, participate in process of self-regulation, and standard setting

in the practice of medicine and their relationships with patients, colleagues and society. It is applicable to different cultures and political systems. The charter is based on three fundamental principles: primacy of patients' welfare, patient autonomy and social justice. To reach these high standards, the physician faces a set of professional responsibilities outlined in Table 1.

Despite the move to consensus, the concept of professionalism has continued to evolve. An ever expanding range of empirical definitions continues to emerge from different authors and organisations placing varying interpretations and emphasis on the individual elements (Arnold 2002). Examples include the Society of Academic Emergency Medicine (Adams et al. 1998), the Accreditation Council on Graduate Medical Education (AGME) (Accreditation Council for Graduate Medical Education 1999) and the UK General Medical Council (General Medical Council 2006, 2009).

More recently, an influential report from the Royal College of Physicians UK aimed to agree a definition for doctors practising in the twenty-first century. They define professionalism as 'a set of values, behaviours, and relationships that underpin the trust the public has in doctors' (Royal College of Physicians 2005). They stress the need for judgement in the face of uncertainty and for accountability and responsibility when making decisions. This report stresses the importance of mastery as a crucial facet of professionalism, a concept taken for granted in other definitions. It recommends an increased awareness of professionalism and greater reflection on its meaning. The need for medical curricula to focus more on leadership, team work, teaching skills, appraisal and the management of medial careers is stressed. They highlight that more research is essential to develop an evidence-base to improve our understanding.

No one would argue that professionalism is not intrinsic to the curriculum. One of the greatest challenges to the integration of professionalism into the curriculum is this wide interpretation of its meaning and the resultant lack of a unified definition. Pinning down universal understanding to agree a common definition may well be unrealistic, an ideal still to be pursued (Cruess et al. 2000). Agreeing a definition acceptable to your institution and setting an appropriate balance of assessable learning outcomes is essential. Reviewing the literature and adapting one or more pre-existing definitions can form the basis for constructing a sound framework. In achieving this, it is essential for an institution to reflect on its own culture and values. These must be agreed and contextualised within the adopted definition to ensure consensus is reached. The learning outcomes must mirror the institutions own values and be agreed by those delivering the curriculum. They must be transparent to the learner and the teacher. Without this both teaching and assessment processes will come under challenge.

Developing a curriculum framework

Step 2: Setting expectations: agreeing the framework

Once the definition of 'professionalism' for the context of your environment has been agreed, the next step is to ensure faculty, students and other key stakeholders understand and sign up to it. Areas where there are differences of opinion should be highlighted at an early stage and resolved. The exercise itself develops a sense of ownership for the integration of Professionalism into the curriculum. Useful frameworks for achieving this are provided by Hilton and Slotnick (2005), Arnold and Stern (2006) and Jha et al. (2006). It is important to pay particular attention to the professional guidelines in operation in your country, if existent. At the end of this process you will almost certainly have a number of areas or domains of professionalism in which you would like your students to demonstrate a threshold standard. It is then important to set these standards and generate outcomes in these domains. Some of these will be developed across the whole of the programme (such as communication or ethics) whilst others (such as adherence to code of practice, rules of confidentiality) might require competency at the programme threshold standard to be demonstrated by the end of year one.

We believe this framework is essential. The institution's expectations can be made very clear to students at the beginning of the programme and provide the stimulus for students to contribute to the planning of their professional development (van Luijk et al. 2000). It enables students to understand from the beginning of their studies that the standards of behaviour expected are closer to graduates in training than for non-vocational students. In countries where students enrol for medical school straight from school, this expectation of high demonstrable standards of professional behaviour at all times presents a rather stark contrast to their peers on other courses. Graduates who have already had the more liberal freedom of university and hold greater life experience may well be at an advantage but there is no firm

evidence to suggest this is the case. Activities such as a 'white coat' ceremony (in which incoming students take a professional oath of ethical conduct) (Huber 2003) and reciting the Hippocratic Oath alongside introductory lectures from senior faculty (Sulmasy et al. 1993) can play an important role in emphasising the faculty's expectations of students on entry making the commitment to professionalism explicit.

Once definitions and standards are agreed, it is possible to review the existing learning opportunities in the curriculum and map these onto the professionalism framework. The results of surveys by Swick et al. (1999) were the first to gain insight into how medical schools were teaching professionalism. The most common approach was to incorporate various aspects of professionalism into one or more compulsory elements that were taught outside the clinical setting. Ninety percent reported curriculum content relating to professionalism but only 50% had formal mechanisms for assessing professional behaviour. Ten percent of medical schools failed to address professionalism either explicitly or implicitly in their curricula. All UK medical schools in a more recent survey of Professionalism have written attitudinal objectives (Stephenson et al. 2006). Most schools included teaching on the behavioural aspects of professionalism. Nineteen of the 23 schools assessed professional behaviour during the course.

Similarly, at the start of the new millennium, most US medical schools now have some type of formal instruction incorporated into their curriculum. Teaching on professionalism and communication however has tended to occur mainly in the pre-clinical years and varies from a single 'white coat' ceremony to multiple (often small group and case-based) courses. It is built on the implicit 'hope' that the acquired attributes will be fortified during the later years in medical school (Rhodes 2001; Cohn & Lie 2002).

We argue this is not enough. The curriculum must be carefully designed to ensure Professionalism is explicit across all years. We recommend two key features of curriculum design; vertical integration and a spiral structure. Learning outcomes on all aspects of Professionalism must be explicitly integrated into vertical strands (Harden 1998) which straddle all years of the curriculum (Figure 1). This can be challenging as Professionalism is intrinsic to other subject areas also vertically integrated across the curriculum, e.g. communication, ethics and continuous professional development. The content of the vertical strands needs careful development with appointed champion leads to take them forward. The spiral approach taken by Harden (1999) in revisiting and raising the contextual challenge of learning outcomes as the course progresses strengthens the framework. For example, understanding confidentiality can be revisited each year by offering case studies or simulations where the scenarios introduce challenges of increasing complexity.

Designing integration has become easier as medical education has evolved from the tendency to silo learning into discipline-based medical curricula (medicine, surgery, paediatrics, etc.) towards more problem-based integrated curricula. More recently, there has been a progression towards defining curricula in terms of educational outcomes through competency-based training, particularly at graduate and specialist residency level (Rowley et al. 2000, Edelstein et al. 2005; CANMEDS 2006; Lee et al. 2007). Competency-based training in practice offers an opportunity to integrate education, training and assessment. All major organisational bodies, including the Accreditation Council for Graduate Medical Education in the US, the Royal College of Physicians and Surgeons in Canada and the General Medical Council in the UK, have developed competency frameworks for undergraduate and graduate training, which emphasise professionalism (Accreditation Council for Graduate Medical Education 1999; CANMEDS 2006; General Medical Council 2009).

Models of learning

Step 3: Can you teach professionalism? Models of learning

'Can you teach professionalism?' is a question commonly asked. Implicitly it has been assumed that professionalism can be trained, learned and assessed. Over the last century the argument that it should be taught has strengthened (Cruess &

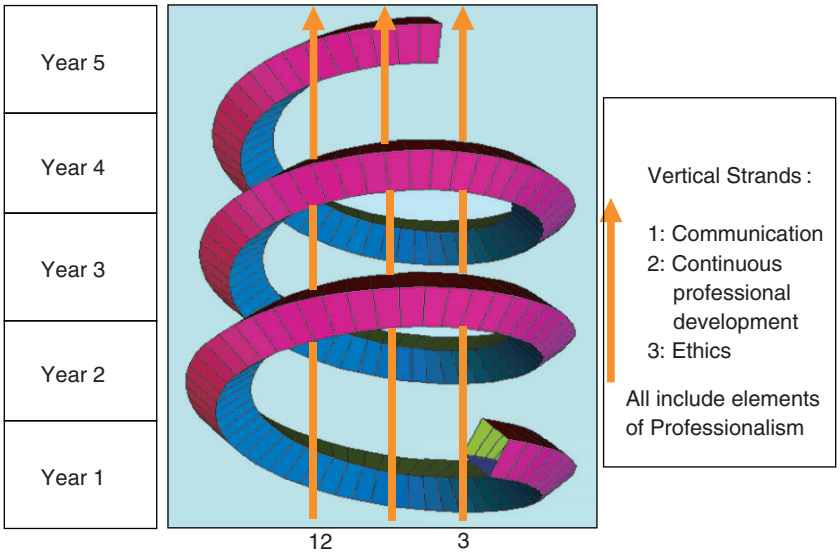


Figure 1. Vertical integration into a spiral curriculum.

Cruess 1997) with emphasis on the need for knowledge acquisition on the subject alongside the instillation of appropriate professionalism into clinical skills and competencies. In order to decide how to integrate professionalism into your curriculum, it is helpful to have an understanding of some of the models of learning that have been identified as useful. These models are fundamental to the development of learner-centred education and the 'on the job' competency training that is now a central requirement of many national regulating bodies.

Experiential learning

Kolb's learning cycle is now a classic (Kolb et al. 2001). This offers a most useful theoretical framework and teaching model for developing professionalism. Kolb emphasises the role of experience in direct contrast to other more cognitive learning theories. The model highlights two contrasting ways of learning through experience –'concrete experience' and 'abstract conceptualisation.' Two opposite ways of transforming experience follow 'reflective observation' and 'active experimentation'.

Box 1 shows how the experiential learning cycle can be applied to small group teaching on how to take a professional approach to confidentiality when interviewing a patient

Reflection and reflective practice

Jenny Moon's book 'Reflection in learning and professional development' gives a comprehensive introduction to the theory and practice of reflection (Moon 1999). She holds a 'common-sense' view of reflection as a form of 'mental processing with a purpose and/or anticipated outcome'. This is ideal for learning about professionalism. It can be applied to relatively complicated or unstructured ideas for which there is no obvious solution. Thus in the example on learning about confidentiality offered above (Box 1), the dilemma of whether the patient's information should or should not be revealed to the health care team allows students to reflect on the potentially different responses to the problem and their implications. Distinctions have been made between 'Reflection IN action' and 'Reflection ON action'. We believe the concept of 'reflection ON action' (Box 1) is more useful in integrating learning on professionalism into the curriculum. It enables potentially wide views on professional behaviour to be explored and related to the institutional values in the safety of a group. Outlying and sometimes inappropriate opinions can be identified and brought in line with the institutional definition.

Situated learning

To reflect successfully ON action, concrete experiences must be embedded in the curriculum. Situated learning is an enhancement of a standard apprenticeship model where students learn by guided learning (Rogoff 1995) in a structured learning environment. Using a simulated case scenario with an expert facilitator in a classroom (Box 1) offers an example. This approach is more applicable to the early years of the curriculum. In the clinical setting, the situated learning approach centres on Lave and Wenger's (1991) theory of Legitimate Peripheral Participation and Wenger's (1999) subsequent work on Communities of Practice. These theoretical approaches highlight the important practical reality that students observe and learn from expert role models. Rather than assimilating an abstract body of knowledge that can be applied at a later date, they are learning through limited practice in the presence of an appropriate professional role model. As they become more experienced, they move closer to the centre of institutional practice.

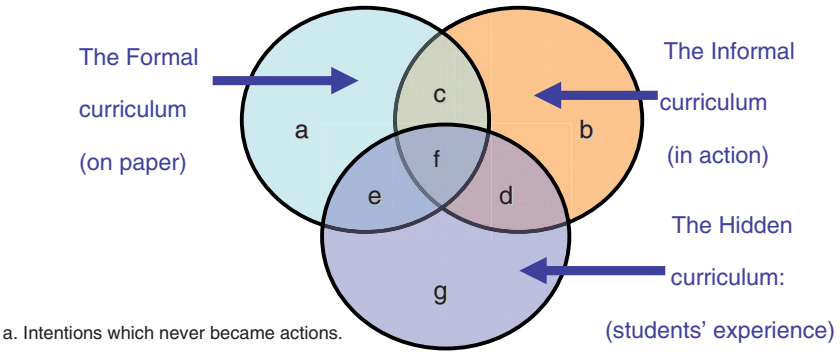
This helps build our understanding of how to inculcate learning on professionalism into the curriculum. Not only do students change their practice as they learn and become more expert, but also the community of practice is continuously shifting and renegotiating its professional boundaries. Students contribute to the change and this enables professional values to be negotiated and integrated. Situated learning has different conceptions and interpretations, but for the purpose of this Guide we offer three key learning principles derived from the theoretical approach of 'attenuated authentic participation' outlined by Freedman and Adam (1996):

- Learning and knowing are context specific
- Learning is accomplished through a process of co-participation
- Cognition is socially shared.

They argue that learning takes place most effectively when the learning task is authentic. This suggests that students will develop professionalism more effectively when involved in clinically related tasks rather than guided classroom-based activities. When designing the curriculum, it is important to differentiate between the types of learning that takes place. When students move to a real-work environment, they have to learn again in the new context. Compared to the guided

Box 1. An illustration of the application of Kolb's learning cycle to teaching on confidentiality to Year 1 students.

- ***Planning –*** Brainstorm for their views on confidentiality and how it should be addressed: activates prior knowledge, orientates and provides a framework and structure for the task
- ***Concrete Experience –*** Students interview a simulated patient with a scenario related to confidentiality, e.g. revealing crucial information and insisting the student does not tell the medical team: This integrates professional behaviour with communication skills practice
- ***Abstract conceptualisation –*** Facilitated group discussion: feedback and discussion provides opportunities for students' feelings and professional attitudes to be explored
- ***Reflective observation –*** The tutor reflect back guidelines for accepted ethical practice: links practice with theory elaborating knowledge on legality and ethics of confidentiality
- ***Active experimentation –*** 'What have I learned?' and 'How will I approach such a patient next time?' Prepare students for the next encounter and enables evaluation of the session



a. Intentions which never became actions.

b. Course aspects, which appear in action, but were not intended.

c. Aspects which were intended, and which appear in action.

d. Student curriculum experiences, which were not intended.

e. Informal curriculum learning, unintended.

f. Intentions, which became actions.

g.'Hidden' curriculum.

Figure 2. The interrelationship between formal, informal and hidden curricula.

learning of the medical school, they will experience a more random, less controlled range of expert role models. We emphasise again the importance of ensuring all Faculty staff are encouraged to mirror the Institutions agreed definition of Professionalism. Support must be in place for students to discuss the range of professional behaviour they observe in the workplace, a relatively complex environment where interpersonal tensions may need to be negotiated. Students, as they become experts, can plan their professional learning by observing and analysing the behaviour of others. We need to prepare students for this changed approach to learning, which takes place as the student moves from a classroom to a clinical setting.

The formal and informal curricula

Step 4: Building experience into the formal and informal curricula

Building on these theoretical models of learning, the resultant practical consequences for teaching and learning professionalism in the curriculum can be addressed. The importance of ensuring that professionalism is integrated with learning knowledge and skills in later active clinical practice should not be overlooked. Aspects of professionalism can be addressed throughout the curriculum using the wide range of contexts and experiences students encounter. Learning in the most authentic context should range from formal small group tutorial sessions in the earlier years to the less standardised clinical environment in the later years. This is true for the formal curriculum. However (Figure 2) the unintended consequences and impact of the informal curriculum must also be addressed. The influence of apprenticeship learning within Communities of Practice in the less standardised informal curriculum should not be overlooked. Practical experience in the clinical environment should be combined with reflection on action. Guidance by experienced and trained teachers is indispensable. Students and trainees inevitably in the uncontrolled environment observe inconsistent and not always exemplary professional behaviour. They need discussion and guidance in reflecting on and learning from this.

Some experts consequently argue that improving medical professionalism can only occur if the teaching and assessment of professional behaviour is *formally* and *explicitly* identified in the curriculum (Cruess & Cruess 1997; Relman 1998). In a survey of 200 medical students (all years) and 136 psychiatry residents (year 1–3), respondents (women more than men) strongly endorsed the presence of professionalism in the curriculum. Only 18% found current professionalism preparation sufficient (Roberts et al. 2004). This highlights the need to improve curriculum design. Maudsley and Strivens (2000) confirm that professionalism is most effectively developed in the context of situated learning. Within the formal curriculum, the most obvious place for situated leaning to take place is in the clinical setting. However, there are also numerous opportunities for development of the classroom-based element. Table 2 summarises some of the methods reported in the literature (modified from Stern and Papadakis 2006).

Medical ethics, humanities and human values, all play a role in sensitising, raising awareness and promoting reflective capacities (Pellegrino 2002). Most frequently, the focus of medical ethics is on specific case scenarios arising around end-of-life care (euthanasia), organ transplantation or reproductive medicine (e.g. abortion) (Fox et al. 1995; Goldie et al. 2000; Robins et al. 2002). Students learn to identify the moral aspects of these situations through guided instruction and to apply the learned moral principles in clinical situations. This skill focuses on the correct analysis of the ethical problem to clearly visualise how the situation might be resolved. Students need help in achieving this. Ethical vision alone is sometimes not enough since other considerations may overcome the demands of morality (Huddle 2005). How do students therefore learn about their 'moral compass'? The answer is that they develop their own sense of ethical behaviour under

Table 2. Teaching and learning professional issues (With permission from van Mook 2009e).

Setting expectations/creating awareness and mindset
- Providing clear definitions
- Defining goals and objectives
- Developing clear policies and procedures
- White coat ceremonies
- Undergraduate introductory lectures
- Recital Hippocratic oath
- Pre-clerkship and clerkship orientation sessions
- Workshop on altruism

Providing experiences: formal curriculum
- Literary discussions, including books, narratives, poetry, history of medicine etc
- Hard case discussions
- Cine meducation
- Grand rounds
- Resident as teacher programmes
- Medical ethics courses
- Humanism sessions
- Writing of short narratives about important incidents
- Chart stimulated recall
- Economic/political dimensions
- Discussion of legal issues
- Teaching leadership/management skills
- Teaching of feedback skills
- Teaching of communication skills
- Teaching of reflection skills
- Sociological consciousness development, including community service programmes
- Anatomy sessions, including issues as death and dying
- Annual retreat or symposium on professionalism73
- Journal club articles on professionalism
- Incorporation of professionalism concepts into morbidity and mortality conferences
- Simulated or standardized patients

Providing experiences: informal/'hidden' curriculum
- Role modelling
- Educational climate and leadership
- Learning by experience

Evaluating outcomes: assessment before entry
Selection
-

Evaluating outcomes: formative assessment during medical school
- By faculty
- By self
- By peers
- By patients
- Standardised patients
- Multi-source/multi -perspective (360°) evaluation

Evaluating outcomes: summative assessment during medical school
- Developing clear policies and procedures
- Committee on professional behaviour

Longitudinal follow-up: guidance and remediation
- Development and reflection portfolio
- Faculty mentor
- Student counsellors
- Committee on professional behaviour
- Longitudinal observations and critical incident reports

the crucial influence of role models. The influence of the informal curriculum should not be underestimated.

The hidden curriculum

Step 5: Addressing unexpected consequences: the hidden curriculum

Plato is said to have stated that we learn through practice and that the best practice is to follow the model of a virtuous person (Pellegrino 2002). In the clinical setting, medical students will meet a range of good professional role models. However, students will almost certainly come across negative role models whose values appear to conflict with the institutional definition of Professionalism and the intended learning outcomes. This aspect of student education has been termed the 'hidden curriculum' (Hafferty & Franks 1994; Stern 1998). The unwritten rules, habits, codes and rituals present in the medical profession are implicitly experienced almost as a rite of passage. Complying with this hidden curriculum is a successful survival strategy. Its influence on, and overlap with, the formal and informal curricula should not be underestimated (Figure 2).

Recent reports on this topic indicate that the traditional medical school climate of humiliation, competition and hierarchy is an obstacle to learning (Seabrook 2003; Lempp & Seale 2004; Brainard & Brislen 2007). Six learning processes of the hidden curriculum have been identified: loss of idealism, adoption of a 'ritualised' professional identity, emotional neutralisation, change of ethical integrity, acceptance of hierarchy and the learning of less formal aspects of 'good doctoring' (Lempp & Seale 2004). At worst, students learn they are rewarded for mimicking the unprofessional behaviour of their educators (Kassebaum & Cutler 1998; Brainard & Brislen 2007).

Far too little attention has focused on the enormous impact that teacher and learner interactions can have on professional development in medical school (Wilkes & Raven 2002). The educational environment is an essential element in teaching professionalism, since it significantly influences the learner attitudes and professional behaviour (Sierles et al. 1980; Simpson et al. 1989; Baldwin et al. 1996; Stern 1996). Ethical values within the environment (Feudtner et al. 1994) and observing role models both play an important role (Brownell & Cote 2001).

Studies examining role models of graduate (Roeske & Lake 1977; Lublin 1992) and post-graduate (Wright 1996) medical trainees have shown that students identify mainly with doctors they regard as good clinicians; those who care about the quality of their relationship with their patients. Students may identify role models early in their medical training. Some medical schools attempt to foster this relationship by assigning a mentor to each student (Wright et al. 1997). Although such programme are felt to be valuable, other faculty become 'unofficial' role models, who tend to come more natural without the specific effort (Flach et al. 1982). The early exposure to role models in a particular clinical field may be strongly associated with medical student's choice of residency training. Development of professional behaviour in the later years, for internships and clerkships as well as residency training, is mainly a result of the impact of observed role models (Stern 1998).

Assessing professionalism

Step 6: Assess the learning outcomes

Although, perhaps, still the most challenging area of assessment, several recent influential reviews have looked at a range

Table 3. Requirements for assessment of professional behaviour (with permission from van Luijk et al.).

A Reliability

Reliability in respect of the situation

The setting must allow a judge to be able to observe the student several times over a lengthy period of time (intra-observer reliability)

Reliability in respect of the assessors

- Assessors must be informed about the use and interpretation of the rating scale. The overall assessment of the student is constituted from independent observations of different assessors

Reliability of the assessment tool

- The rating must be clear and easy to fill out, easy to mark

B Validity

Validity in respect of the situation

- The situation in which a student is assessed must contain elements relevant to future practice

Validity in respect of the judges

- The judge should be qualified
- The judge should have observed the student him/herself

Validity of the rating scale

- The criteria on the rating scale should all refer to a defined construct of professional behaviour and should not contain elements of other relevant parts of clinical competence
- Assessors should consider items of the rating scale as relevant elements of professional behaviour
- The rating scale should stimulate the desired behaviour (consequential validity)
- The rating scale discriminates between adequate and inadequate professional behaviour. A more differentiated judgement is not necessary

C Acceptability

Acceptability in respect of the student

- The criteria for assessing professional behaviour are also useful for feedback and helpful for the student to change unprofessional behaviour
- The student must have and be given the time to improve his/her professional behaviour

Acceptability in respect of the institution

- The school must receive useful and beneficial information to support the student to overcome his/her unprofessional behaviour
- The school must receive useful and beneficial information to sanction the student if necessary

The school must gather the information in the most efficient way

of aspects of assessing professionalism (Ginsburg et al. 2000; Arnold 2002; Lynch et al. 2004; Veloski et al. 2005; Jha et al. 2007). Whilst no single, definitive method of assessing professionalism has been identified, there are many common approaches. Examples include: peer assessment, the objective structured clinical examination, direct observation by faculty, critical incidents reports and learner maintained portfolios.

Since assessment is a powerful stimulus for learning, teaching of professionalism issues and observation in daily practice should be accompanied by explicit assessment of this domain. The focus of the academic literature has so far understandably been on professional behaviour and less on the more attitudinal aspects of professionalism. We do not know the extent to which inner virtues and outer conduct differ (Hafferty 2006). We do know the context of the behaviour is important. In the presence of significant external constraints, attitudes and behaviour are not strongly related (Wallace et al. 2005). This leads to the possible conclusion that professional behaviour can be stage-managed. Students can learn to fake professional behaviours in order to pass assessments. It remains possible for students with professional behaviour but unprofessional attitudes to graduate.

In deciding on a method of assessment, it is necessary to be clear about the purpose. There are two main reasons for assessing students. One is to provide feedback to students to enable them to improve. The other is to measure achievement of objectives. Failure to provide sufficient opportunities for assessing professionalism can send conflicting messages to students and practising clinicians (Stern 2006). A statement from Cohen sums up these consequences: they don't respect what you expect, whereas they respect what you inspect' (Cohen 2006). Formative assessment aims at development and steering of student's behaviour, whereas summative assessment can have consequences for progress through the curriculum. In the case of professional behaviour, feedback derived from assessment may improve professional behaviours (Papadakis et al. 2004; van Mook et al. 2007). Conducting assessments frequently, and implementing them long term, provides learners with the opportunity to change, thereby guiding remediation. (Phelan et al. 1993; van Luijk et al. 2000)

The assessment of professional behaviour should meet the criteria of validity, reliability, feasibility and acceptability (Veloski et al. 2005). The criteria, as applied to the example of a rating scale for professional behaviour assessment, are shown in Table 3. The 2005 review by Veloski reviewed 134 studies on professionalism of which approximately half reported estimates of reliability; 72 lacked any information on reliability. Content validity was discussed in 86 studies with strong evidence being provide in only 34 while construct validity was discussed in 61 studies. One in three studies provided strong evidence of practicality, and some evidence of practicality was reported in about two-thirds of studies (Veloski et al. 2005). Only 11 studies addressed professionalism as a comprehensive construct, and nine as a distinct facet of clinical competence. Most studies, 109, concerned research or programme evaluation, rather than formative or summative assessment. Sixty-five out of the 134 studies used self-administered instruments rather than independent observation of the behaviour. More recently, Jha et al. concluded from a systematic review of studies assessing professionalism that 'there is little evidence of reported measures which are effective in assessing attitudes towards professionalism in medicine as a whole' (Jha, Bekker et al. 2007). He went on to suggest that there is little evidence of interventions that can

achieve attitudinal change over a period of time. It remains necessary to consider assessment in the light of these findings. As with other areas of assessment, if Professionalism is to be integrated effectively into the curriculum, we need to ensure that the process achieves credibility in the students' eyes and attention is paid to the reliability, feasibility and acceptability.

It is therefore pertinent that a group of international experts reviewed the literature as part of a working group on the assessment of Professionalism at the 2010 Ottawa conference (Hodges & Ginsburg 2011). The review emphasised that professionalism is not a simple generalisable construct. It is complex, multi-dimensional and, as we have illustrated, remains difficult to define. As with other areas of clinical competence, professional performance is context specific, i.e. student performance will vary from case to case. Wide assessment across a range of contexts is essential. To add to the complexity, a professional interacts professionally at an individual micro level within themselves, an interpersonal meso level and at a more macro level within the institution itself. Identifying positive professional characteristics may well place different demands on assessment compared to focusing on the negative aspects of Fitness to Practise.

Inevitably a range of assessment tools are required across the curriculum. Careful consideration of their validity and reliability is important but, on its own, not enough. It is important to ensure that findings are collated over time and carefully triangulated before an overall judgement can be made. This favours a more portfolio approach collating attendance records, multi source feedback, performance in objective structured clinical examinations, reflective writing on critical incidents, etc., to build a positive picture of a trainee's professional performance across different contexts. This needs to embrace their interactions at individual, interpersonal and institutional levels. Assessment needs to be embedded in the curriculum. It must be integrated vertically across the curriculum at increased levels of complexity as the trainee progresses through the course. It must mirror the institution's educational intent and the learning outcomes set for Professionalism. Inevitably assessment will drive the learning.

Practical approaches to learning and assessing professionalism

Step 7: Evaluating programme: case studies

There are many differing approaches to the teaching, learning and assessment of professionalism in medical education. We outline innovative and exemplary methods for teaching, learning and assessment of professionalism. The aim is to give a flavour of some of the different approaches currently employed in this area. There are many examples incorporating professionalism teaching and learning into modern curricula. These range from small interventions encouraging an increase in awareness by the students to their own professionalism, through integrated professionalism themes, threads or modules throughout curricula. We have selected a few which illustrate the range and have been well evaluated.

Case studies on teaching and learning

Case study 1: Peer professional guidance

It is common for senior students to assist their more junior peers by passing on important and useful information. This process occurred for many years through the hidden curriculum (Glicken & Merenstein 2007). Some universities have started to encourage this in a more formal manner. One example of this is within Cardiff University where fifth-year students provide teaching and guidance for their first-year peers on how to maintain their continuing professional development documentation (Hain 2008). The recently graduated first-year foundation doctors also provide a lecture on practical professionalism for the students prior to beginning their first clinical attachments. These lectures cover expectations of dress code, attitude and behaviours during their hospital attachments.

Case study 2: Introduction of a vocational studies course

Glasgow University introduced a vocational studies course in 2003 (Goldie et al. 2007). This course was introduced for the first- and second-year students. The course consists of seven small group teaching sessions with each group having a single vocational studies tutor for all sessions. This tutor acts as a role model and provides guidance within the sessions for the students. These small group sessions provide opportunities for students to explore their own pre-existing perspectives on professionalism. One aspect of a larger portfolio developed by the students as part of this course is the reflection on a thought provoking event. This is followed by an ethical case study describing and detailing this event. These thought-provoking events are used as part of these tutorials to explore professional issues in greater depth from a student's own perspective.

Case study 3: Emotional intelligence training

Emotional intelligence is defined as an individuals' abilities to 'monitor their own and others' emotions, to discriminate among them, and to use the information to guide thinking and actions' (Salovey et al. 1995). It has been suggested that emotional intelligence relates to the medical professionalism attributes required by the General Medical Council (Lewis et al. 2005). Emotional intelligence is thought to relate to communication skills, the doctor–patient relationship, empathy, teamwork and, more recently, academic performance (Arora et al. 2010).

At the University of Liverpool, a pilot intervention to study the effects of emotional intelligence training on a group of third-year undergraduate medical students was delivered (Fletcher et al. 2009). The pilot intervention group's emotional intelligence score was then compared with a control group within the same cohort not participating in the intervention. The intervention consisted of a series of seven monthly emotional intelligence development sessions. The students' emotional intelligence was measured pre and post intervention using the Bar-On emotional quotient inventory self-report measure (Bar-On 1997). This study demonstrated that these development sessions had a significant impact of the intervention group's emotional

intelligence scores when compared with the control group of students.

Case study 4: Systematic integrated programme of teaching professionalism

Professionalism teaching and evaluation has been integrated within the entire undergraduate and postgraduate programme at McGill University (Cruess 2006). This programme consists of a series of flagship activities designed to develop and promote aspects of professionalism. This is achieved through teaching and activities featuring positive professional role models. These flagship activities begin with introductory lectures on the first day discussing roles of the healer and the professional. This presentation is followed by small group discussions of vignettes describing unprofessional behaviours. Similar vignette-based discussions occur within the first two years of study. During the third year of studies, students are expected to produce their own reflective work based on an observed example of unprofessional behaviour. These reflections are then discussed within the small group facilitated by a group tutor. In the fourth year of study there is a seminar series with the title of 'professionalism, medicine's social contract and you'. This is supported by 15 articles from social sciences and medicine. The programme concludes with students presenting to their peers in their small groups literature on regulation, conflicts of interest and social contract. The programme also includes other activities designed to promote professional attitudes and behaviours. These include students selecting their own faculty mentor, white coat ceremony and introduction to the cadaver and body-donor system. The themes from the undergraduate programme are continued into the postgraduate programme (Steinert et al. 2005).

Case Study 5: Digital professionalism guidance

The issue of medical students' professionalism of their online presence has been discussed within the medical education literature (Chin 2010; Esen 2010; Garner and O'Sullivan 2010; Robinson et al. 2010). Some of the concerns raised by these authors have begun to be answered by guidance issued by medical defence organisations (Williams 2010) and professional bodies (Mondoux 2010). As part of the first-year undergraduate medical students induction programme within the University of Liverpool, a new component designed to raise the awareness of medical students to their own online professional presence has been introduced. These inductions provided students with guidance on digital professionalism with emphasis on their privacy, joining inappropriate groups, photos used on websites and being aware of who are their friends and any thing posted relating to them.

Case study 6: Ethical/professional dilemmas

The VU University Medical Centre in Amsterdam introduced a professionalism programme to the fifth year of their curriculum in 2000 (Boenink et al. 2005). This professionalism programme is scheduled for students who are about to enter their clerkships. The students are asked to read and produce a written reflection on the situations described in three vignettes. The vignettes are based on unprofessional behaviours and conflicts encountered by previous clerkship students. These reflections are then used in a small group student discussion with a psychologist and a physician. The outcome of this programme was evaluated using scoring by independent raters of the group discussions. The findings from this evaluation indicate that this programme increased student's knowledge of professionalism based around the topics of the vignettes, but was not generalisable to other situations.

Case studies on assessment

Many methods are currently employed to assess professionalism summatively and formatively in undergraduate and postgraduate medical education. We outline several different methods for the assessment professionalism.

Case Study 1: Self-assessment instrument

A self-assessment questionnaire for measuring the professionalism of surgical residents was developed at the University of Michigan (Gauger et al. 2005). This self-assessment instrument focuses on 15 attributes of professionalism and the participant was asked to select a particular statement from a list of seven options for each of the attributes. All statements have the extremes of the scales as undesirable examples for the particular attribute. For example, the punctuality attribute has the two extremities as 'consistently late: patients and other physicians kept waiting' and 'too early: wastes time waiting for others to be on time'. This instrument was reported as useful for measuring surgical resident's professional behaviours, but no reliability for this measurement was reported (Gauger et al. 2005).

Case Study 2: Measuring professionalism: conscientiousness index

At Durham University School of Medicine and Health, a conscientiousness index was devised to explore whether students completing specific tasks over several domains can be used as a indicator of the student's professional behaviours (McLachlan et al. 2009). The domains that data has been collected on include: attendance, work being submitted on time, participation in evaluation and research. Whenever a student completed a task from one of these domains satisfactorily and on time, they are awarded one conscientiousness point. Each student's point score is compared to a grade given by a faculty member based on their observed professional behaviour. This grading system was based on the UK General Medical Council's concept of professionalism (General Medical Council 2006). A strong positive correlation has also been found between the conscientiousness index points score and the grade given by the faculty member for each student. The conscientiousness index has also been found to correlate with a student peers estimation of their professionalism (Finn et al. 2009).

Case study 3: Peer assessment of professional behaviours

Groningen University have introduced peer assessment within small group work as a method for improving student professional behaviours (Schönrock-Adema et al. 2007). The peer assessment was based on three domains: aspects of communication, task performance and personal performance. The students were divided into control and

intervention groups. The intervention group underwent the peer assessment once per trimester over a two-year period. The two groups were both tutor assessed on the three domains. The scores from the control and intervention groups were compared and a significant increase was found in the task performance and personal performance domains for the intervention group. No significant difference between the two groups was found on the aspects of communication domain. It was concluded that peer assessment did have a positive impact on student professional behaviours for the students who were more accustomed to the complex learning environment of undergraduate medicine.

As part of the evaluation system for the internal medicine clerkship at the Southern Illinois University School of Medicine, students are required to evaluate the professionalism of their peers (Kovach et al. 2009). An anonymised instrument consisting of three domains on a six-point scale together with comments on strengths and weaknesses issued by the students to rate their peers during their internal medicine clerkship. The three domains of the rating are self-directed learning, interpersonal relationships and motivation/dependability/responsibility. These evaluations were used summatively as one contributing component towards the students gaining honours.

Case Study 4: Professionalism mini-evaluation exercise

The professionalism mini-evaluation exercise (P-MEX) (Steinert et al. 2005) was based on the format of the Mini-Clinical Examination Exercise, as detailed by Norcini et al. (1995). The P-MEX was designed during a workshop within McGill University attended by faculty members and residents. Twenty-four behaviours are evaluated using a five-point scale. A 'not applicable' option was used to cater for different situations where the forms may be used. The P-MEX is designed to be used in situations where a student's professional behaviours can be directly observed. The P-MEX is intended for formative and summative assessment with both undergraduate and postgraduate students. The reliability of the P-MEX was calculated using a D-Study and between 10 and 12 forms per student was indicated for a reliability value of 0.80 (Cruess et al. 2006). The P-MEX has also been converted into Japanese and the reliability and validity have been confirmed by running a pilot study within a Tokyo hospital (Tsugawa et al. 2009).

Case Study 5: 360 degree professionalism appraisal

Three hundred and sixty degree assessment of competencies is now common in postgraduate education (van der Vleuten and Schuwirth 2005). The concept of multiple views of a student's professional competencies has been extended to undergraduate programmes. Within the West Midlands Deanery, a team assessment of behaviour (TAB) has been introduced (Whitehouse et al. 2005). TAB assessments are now an integrated component of the foundation programme assessments in the UK (Pant et al. 2009). The TAB forms consist of a 3-point scale (pass, borderline and fail) together with a comment box on four domains. The domains assessed by the TAB form are: Professional relationship with patients, Verbal communication skills, Team-working and Accessibility. This assessment consists of a postgraduate student having 15 TAB forms signed off by a mix of consultant supervisors, doctors and nurses. Each rater is required to fill in the TAB and confidentially return it to the student's clinical supervisor. The clinical supervisor then collates the 15 forms and produces a summary report for the student and faculty. The responses from the forms are used to decide whether the student requires further training or development in a specific area of professionalism.

Many medical schools have now introduced appraisals within early years of their curriculum. At Hull York Medical School student receive appraisal feedback from their peers, PBL tutors, clinical skills tutors, discussion on their reflective essays, review of their formative results and from their General Practice placements twice a year. Individualised learning objectives are derived from this data and discussion for each student to aid them in their studies and personal development.

A similar process can be found at the University of Liverpool where first- and second-year students receive 360 degree professionalism assessment from all their tutors (PBL, clinical skills, communication skills, community studies, Human Anatomy Resource Centre). The students use the feedback provided by the tutor, two peers and their own self-assessment to measure their own progress in PBL against a set of devised criteria. This feedback together with personal development planning, career management, reflection on an ethical scenario, online professionalism discussions and the student's formative examination results are combined into one document. The students then meet with a trained appraiser who discusses this document with them. The appraiser assists the student in identifying their own strengths and weaknesses. These strengths and weaknesses are then used to develop an action plan for the remainder of the academic year for the student.

Conclusion

We recognise that this Guide does not answer all the challenges we face. Professionalism is defined by societal values. The challenge for the medical educator is to agree and deliver curriculum content which mirrors and prepares trainees for the inevitably changing professional expectations, both doctors and society will hold across the ensuing 40–50 years of their career. Globalisation with increasing the movement of doctors and patients around the world, and consequent cultural diversity, also challenges our understanding. More research to explore the influence of increasing workforce migration on professional behaviour is needed. We have emphasised that preparation for continuous professional development is essential. Instilling professional values and appropriate behaviours at the time of training is not enough. This requires more than self-directed learning skills. The ability to reflect, adapt to uncertainty and be flexible is essential. Undoubtedly, as the professional mix of the clinical workforce changes, these skills will gain increasing importance for doctors in the future.

Yet, we tend to teach to fixed frameworks and assess using objective structures which foster certainty and standardise behaviour. Different approaches to training are needed. Assessment must also be carefully programmed to foster a

positive non-punitive approach which demonstrates the value placed on striving for excellence. There is a risk that competence-based curricula and a 'can do' approach to assessment fail to encourage motivation to continue to improve. We cannot afford to stand still. Teaching, learning and assessment practice must be based on evidence and, despite the already significant literature, it is equally apparent that much more research is required; we hope this AMEE Guide will inspire this.

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