

Faculty development for teaching and evaluating professionalism: from programme design to curriculum change

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INTRODUCTION The recent emphasis on the teaching and evaluation of professionalism for medical students and residents has placed significant demands on medicine's educational institutions. The traditional method of transmitting professional values by role modelling is no longer adequate, and professionalism must be taught explicitly and evaluated effectively. However, many faculty members do not possess the requisite knowledge and skills to teach this content area and faculty development is therefore required.

PROGRAMME DESCRIPTION A systematic, integrated faculty development programme was designed to support the teaching and evaluation of professionalism at our institution. The programme consisted of think tanks to promote consensus and 'buy-in', and workshops to convey core content, examine teaching strategies and evaluation methods, and promote reflection and self-awareness.

PROGRAMME EVALUATION The programme was evaluated using a CIPP (context, input, process, product) analysis. The institution supported this initiative and local expertise was available. A total of 152 faculty members, with key educational responsibilities, attended 1 or more faculty development activities. Faculty participation resulted in agreement on the cognitive base and attributes of professionalism, consensus on the importance of teaching and evaluating professionalism, and self-reported changes in teaching practices. This initiative also led to the

development of new methods of evaluation, site-specific activities and curriculum change.

DISCUSSION A faculty development programme designed to support the teaching and evaluation of professionalism can lead to self-reported changes in teaching and practice as well as new educational initiatives. It can also help to develop more knowledgeable faculty members, who will, it is hoped, become more effective role models.

KEYWORDS education, medical, undergraduate/*standards; professional competence/*standards; teaching/methods; curriculum; faculty/education; programme evaluation; role.

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'The greatest difficulty in life is to make knowledge effective, to convert it into practical wisdom.' Sir William Osler

INTRODUCTION

The increasing complexity of the practice of medicine, coupled with the entry of the state and the corporate sector into the health care field, have drastically altered relationships between the medical profession and the societies it serves. Doctors have felt that the values traditionally associated with healers and professionals have come under threat, and their dissatisfaction with the practice of medicine has increased. In response to this challenge, the importance of professionalism – for doctors and society – has been recognised.^{1–3} Medicine's major organisations have promoted improved methods of

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Overview

What is already known on this subject

The teaching and evaluation of professionalism to students and residents is increasingly important.

To date, no published work on faculty development to support these initiatives exists.

What this study adds

A systematic and integrated faculty development programme to promote the teaching and evaluation of professionalism can have an impact on educational practices.

This initiative can serve as a template for other competencies and other schools.

Faculty development can bring about curricular change.

Suggestions for further research

Diverse faculty development methods should be used to reach wider audiences.

More rigorous evaluations of these faculty development initiatives should be conducted.

teaching and evaluating professionalism among students, residents and practising doctors,^{2,4-8} and a flurry of activity has erupted in this domain.⁹⁻¹²

However, many of the faculty members who must implement these new initiatives are unable to articulate the attributes and behaviours characteristic of the doctor as a professional, do not serve as effective role models, and have not mastered appropriate teaching and evaluation methods. As a result, faculty development is needed to achieve success in promoting professionalism.

Faculty development refers to those activities that renew or assist faculty in their diverse tasks.¹³ Faculty development in the area of professionalism faces a number of challenges. Most doctors believe that they are 'professional' and that teaching professionalism is intuitive. When both society and the profession itself

were reasonably homogeneous, values were shared and could be transmitted effectively through role modelling.^{10,14} The increasing complexity of the practice of medicine, the ethical dilemmas faced by contemporary doctors and the diversity of the medical profession and of society make this no longer true. Faculty must now be able to teach professionalism explicitly by articulating its core concepts and demonstrating appropriate behaviours. This requires that faculty development should start with a cognitive base that includes the definition of professionalism, its historical roots, its relationship to the ever-changing social contract between medicine and society, and the obligations necessary to sustain professional status.^{1,3,10} It should also include activities that promote self-reflection, awareness and change. Finally, professionalism must be evaluated in a valid and reliable fashion,^{12,15-17} and its core tenets must be valued by the organisations in which doctors practise and teach.

To date, the literature does not contain a comprehensive work on faculty development designed to support the teaching and evaluating of professionalism. The goal of this paper is to describe the process and content of a faculty development programme designed to do so in a systematic and integrated fashion, and to provide a preliminary assessment of this initiative.

PROGRAMME DESCRIPTION

The description of our faculty development programme will be divided into 2 sections: guiding principles and process, which includes content and methods.

Guiding principles

The design of this initiative was guided by the need to transmit core knowledge, translate content into practice, focus on teaching before evaluation, and promote consensus and 'buy-in'.

Transmission of core knowledge

In order to teach and evaluate professionalism, faculty members need to develop a common understanding of the definition of professionalism, the characteristics that distinguish it, and the behaviours expected of a professional. This is essential, as diverse definitions exist,^{1-3,18} and teachers often see professionalism as a vague concept lacking a cognitive base. In addition, teachers need operational definitions that can be

taught and evaluated, making the implicit explicit. We cannot tell students simply to 'be like us'.¹⁹

Translation of content into practice

The attributes of the doctor as healer and professional must also be taught and demonstrated in the clinical setting. Accordingly, clinicians need to translate the core content into practice and see its applicability and relevance. We chose to promote the latter by defining professionalism and its attributes, using case examples, and asking participants to complete action plans. We also believed that it was critical to conceptualise role modelling as a powerful teaching method^{14,20} and strategy for communicating professional values.

A focus on teaching

The focus on teaching arose from several factors. Virtually every accrediting, licensing and certifying body^{2,4-8} requires that professional behaviours in students and residents be evaluated. However, if professionalism is to be evaluated, it must be taught. We had also developed in-house expertise^{1,10,18} that needed to be transmitted to teachers and students, and we believed that a focus on *teaching* professionalism would be less threatening to health care professionals than a focus on *being* professional.

Promotion of consensus and buy-in

We had expected some resistance to the concept of professionalism as a consensus on its importance, values and definitions was lacking. We therefore chose a systematic approach, consisting of think tanks and workshops as key educational methods, to promote buy-in. Both methods allowed participants to explore their values and beliefs, acquire core content and skills, and begin to take 'ownership' of this content area.

Process

The following steps (outlined in Fig. 1) were used in the development of our faculty development initiative:

Think tank on teaching professionalism

To initiate the discussion about teaching professionalism, the dean invited 25 educational leaders in our medical school to a half-day session, to highlight the importance of this issue, develop consensus and discuss outreach to faculty members. The participants

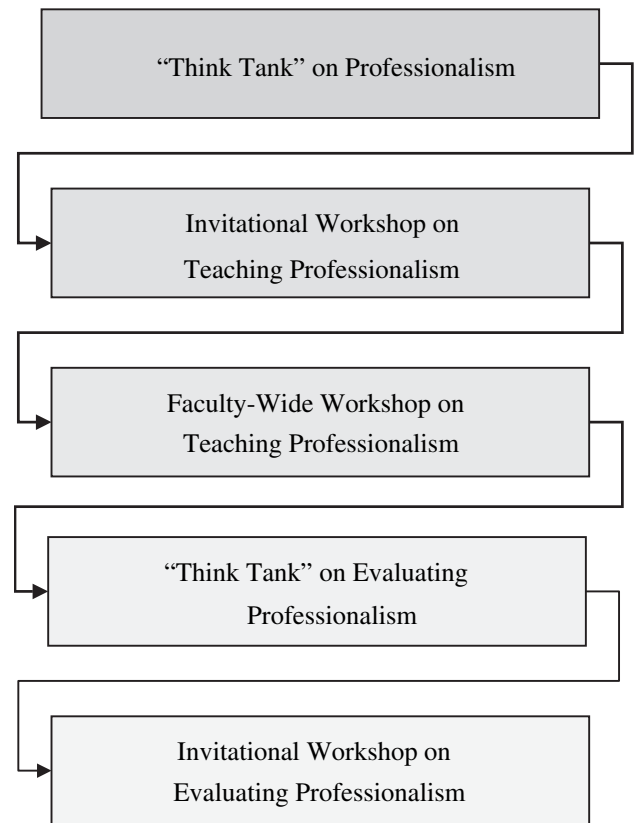


Figure 1 The faculty development process.

included the dean, the associate deans for undergraduate and postgraduate medical education, members of the faculty development advisory committee, key departmental chairs and programme directors at the undergraduate and postgraduate levels, and local content experts. The think tank started with a brief overview of the core content of professionalism and proceeded to examine how professionalism was being taught at all levels of the curriculum. By the end of the session, a plan for a faculty development workshop had been developed. Other outcomes included a consensus on the importance of teaching professionalism, a review of how professionalism was being taught, and agreement on content.

Invitational workshop on teaching professionalism

Following the think tank, all departmental chairs and undergraduate and postgraduate programme directors were invited to a half-day workshop called 'The Teaching of Professionalism'. This workshop was limited to 35 participants so that we could test out the working definitions of the attributes of professionalism, examine the strengths and weaknesses of diverse teaching methods, and receive immediate feedback.

The workshop was organised into 3 parts: the core content of professionalism; personal views and beliefs, and strategies for teaching. Table 1 presents a definition of professionalism and its core attributes that were refined by the group members. Participants were also asked to discuss a number of case vignettes (based on real clinical or classroom encounters) to identify attributes of professionalism, and to match available teaching methods to the different attributes. The workshop concluded with the completion of an action plan for each department. By the end of the workshop, we had broadened consensus regarding the importance of professionalism and its core content, and developed a plan for a faculty-wide workshop. We had also prepared a cohort of small

group facilitators for future workshops and teaching sessions, and outlined a series of recommendations regarding the teaching of professionalism that would be presented to the undergraduate and postgraduate curriculum committees. The 2 key messages of this workshop were the importance of role modelling and the need to make the teaching of professionalism explicit.

Faculty-wide workshop on teaching professionalism

The faculty-wide workshop accommodated 65 health care professionals, representing all major specialties. The workshop's goals were to highlight the importance of teaching professionalism in the Faculty of

Table 1 Definition of 'profession' and core attributes of professionalism

Definition of Profession

An occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it is used in the service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society.¹⁴

Core attributes

Competence

To master and keep current the knowledge and skills relevant to medical practice

Commitment

Being obligated or emotionally impelled to act in the best interest of the patient; a pledge given by way of the Hippocratic Oath or its modern equivalent

Integrity and honesty

Firm adherence to a code of moral values; incorruptibility

Morality and ethics

To act for the public good; conformity to the ideals of right human conduct in dealings with patients, colleagues, and society

Altruism

The unselfish regard for, or devotion to, the welfare of others; placing the needs of the patient before one's self-interest

Autonomy

The doctor's freedom to make independent decisions in the best interest of the patients and for the good of society

Self-regulation

The privilege of setting and maintaining standards; being accountable for one's actions and conduct in medical practices, for the conduct of one's colleagues, and the profession

Responsibility to society

The obligation to use one's expertise for, and to be accountable to, society for those actions, both personal and of the profession, which relate to the public good

Responsibility to the profession

The commitment to maintain the integrity of the moral and collegial nature of the profession and to be accountable for one's conduct to the profession

Teamwork

The ability to recognise and respect the expertise of others and work with them in the patient's best interest

Medicine and to improve the teaching of this content area by transmitting core content, discussing key teaching strategies and developing an action plan for each department. A written matrix, designed to facilitate the 'matching' of methods to attributes, was developed to guide the discussion and highlight the value of examining the strengths and limitations of diverse approaches (Fig. 2). The outcome of this workshop was increased buy-in among the faculty members present, new content experts, and an array of educational resources that could be used for teaching purposes.

Think tank on evaluating professionalism

We realised at the outset that, for teaching to be successful, professionalism would need to be evaluated in a more systematic way. Although aspects of professionalism were being assessed by in-training evaluations, improvement was needed. We therefore held another think tank with 20 educational leaders and content experts to examine methods for evaluating professionalism and develop the content and method of a workshop in this area. We also realised that the attributes of a doctor as a professional and healer had to be integrated in order for evaluations to be comprehensive. Accordingly, definitions of healing attributes were developed and agreed upon (e.g. caring and compassion, openness and insight, presence). The outcome of this session was a detailed plan for a faculty-wide workshop.

Faculty-wide workshop on evaluating the doctor as healer and professional

The goal of this workshop, which welcomed 95 educators, was to develop methods for evaluating professionalism at the undergraduate and postgraduate levels. To accomplish this objective, we examined different approaches to evaluating professionalism,^{2,12,15-17} assessed the benefits and limitations of different evaluation methods (e.g. global rating scales, portfolios, critical incidents), and defined specific, measurable behaviours for each attribute. The latter activity was performed to highlight the importance of behaviour specificity and identify a bank of behaviours that could be used in the development of assessment tools. Matrices were also used to guide the generation of behaviours, the matching of methods to behaviours, and the feasibility of the different assessment approaches. By the end of the workshop, we had developed consensus on the need to improve our evaluation of professionalism, identified behaviours that described the attributes, and developed a series of recommendations

that were presented to the Faculty of Medicine (e.g. each attribute must be evaluated on a regular basis).

Programme evaluation

The CIPP model,^{21,22} a frequently used decision facilitation model of programme evaluation, guided our programme assessment. CIPP is an acronym that represents 4 types of evaluation relevant to our programme: context, input, process and product.

Context evaluation

Context evaluation involves an analytic effort to conceptualise the relevant elements of an educational environment and gather empirical data that help identify the problems, needs and opportunities present in an educational context.²² In our estimation, and that of our colleagues, our context was ready for a faculty development effort on teaching and evaluating professionalism as a result of a renewed interest prompted by societal needs and educational imperatives. The dean and associate deans also supported the effort and our in-house expertise needed to be shared.

Input evaluation

Input evaluation ascertains the available capabilities of the instructional system for achieving the objectives identified as a result of the context evaluation.²² It also assesses learner characteristics (e.g. roles and responsibilities). From our perspective, we had the necessary resources to conduct this initiative, including a well functioning faculty development office that supported professional development in this area, local expertise,^{1,10,18} and influential participants with key educational responsibilities. The choice of think tanks followed by workshops was also deemed appropriate as the initial faculty development methodology.

Process evaluation

Process evaluation aims to monitor and assess the instructional procedures.²² We conducted a process evaluation by asking participants to complete a post-workshop evaluation that assessed their perceptions of the workshop's format, usefulness and anticipated benefit.

Figure 3 illustrates the immediate post-workshop evaluations, completed by all the participants. As seen in the figure, each session was evaluated at between 4.1 and 4.6 on a 5-point scale. In addition, 98% of the

Core Attributes	Educational Methodologies									
	Interactive Lectures	Small Group Discussions	Case Presentations/Case Vignettes	Role Plays/Simulations	Films/Videotape Reviews	Experiential Learning	Role Modelling/Demonstrations	Directed Readings/Independent Learning	Other	
Competence										
Commitment										
Integrity & Honesty										
Morality & Ethics										
Altruism										
Autonomy										
Self-Regulation										
Responsibility to Society										
Responsibility to the Profession										
Teamwork										
Glossary of Educational Methodologies: Interactive Lectures..... lectures, grand rounds or large group presentations, with an interactive component Small Group Discussions..... interactive discussions in non-lecture, non-clinical settings (e.g., workshops, journal club, sit-down rounds) Case Presentations/Case Vignettes..... presentation and discussion of clinical cases in a variety of settings Role Plays/Simulations..... the use of role plays and simulations for learning Films/Videotapes..... the use of films and videotapes for learning Experiential Learning..... learning while participating in patient care (e.g., managing ambulatory patients, hospital work, community service) Role Modelling/Demonstrations..... the acquisition of attitudes or skills by observing and patterning the behaviour of others Directed Readings/Independent Learning.. the independent use of educational resources (e.g., books, journals, film, internet) in the pursuit of learning										

Figure 2 Matrix for matching teaching methods to attributes.

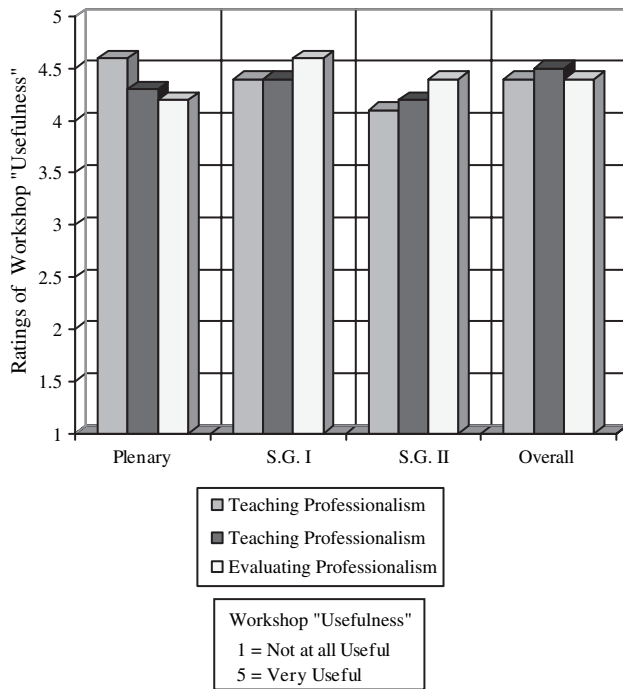


Figure 3 Workshop evaluations.

participants said they would recommend these workshops to their colleagues.

Narrative comments on the evaluation form were divided into 3 categories: overall perceptions of the workshop's usefulness; identification of the most (and least) useful components, and intent to change. Participants' responses to what was most useful about the workshop could be grouped into workshop methodology and content. Regarding the former, the participants most valued the small group discussions as an opportunity to reflect, discuss this topic with their colleagues, and apply the content to their settings. Their comments regarding content supported the value of defining core concepts, providing a structured framework for teaching and evaluating professionalism, and analysing case vignettes. The following quotes are representative of the comments made:

'This workshop motivated me to be more proactive in teaching professionalism;'

'The workshop helped me to realise that professionalism can and should be taught explicitly, not implicitly;'

'We need to give professionalism the attention that it deserves.'

In response to the question of how the participants might teach professionalism in the future, the

majority noted that they would try to incorporate these concepts into their clinical teaching and that role modelling would be their method of choice. Many commented that they would try to make their teaching more *explicit* and *insert* professional content into ongoing teaching. The following comment illustrates this sentiment:

'I will make a concerted effort to find opportunities to teach this and I will not expect it to just "happen".'

Another individual made the following link to his clinical practice:

'I already invoked the term "professionalism" to point out the reverse to a colleague and it worked! Now I have clearer concepts.'

Product evaluation

Product evaluation aims to measure the attainments yielded by an instructional programme, with a clear emphasis on the outcomes produced.²² We carried out a product evaluation by monitoring the educational activities and initiatives that followed the delivery of our faculty development programme, and by asking workshop participants to reflect on their use of the concepts and skills, 18 months after the last faculty-wide initiative.

Table 2 summarises the formal educational activities and initiatives that took place after the workshop. As can be seen, the faculty development programme was associated with a burst of creative effort designed to improve medical education at our university. In addition, a 3-item, follow-up questionnaire was sent to all the workshop participants in the autumn of 2003. A total of 67 individuals responded (45% response rate). Of these, 61% said they had used what they had learned in their clinical practice, 70% said they had used the workshop material in their clinical teaching with students or residents, 44% had applied the material in formal teaching, and 25% had conducted a continuing medical education or faculty development activity on professionalism. An analysis of their responses to the open-ended questions indicated that the participants had used what they had learned in their clinical practice when dealing with consultants, when communicating with patients and in team meetings.

Participants also reported that they had used the workshop content in their clinical teaching with residents and students, at the bedside and in the

Table 2 Summary of educational initiatives following the faculty development programme

Educational initiatives

Development of small group teaching sessions on professionalism in the first, second and fourth years of the undergraduate curriculum

Development of a faculty-wide residency teaching programme on professionalism

Delivery of departmental grand rounds in local hospitals (e.g. medicine, paediatrics, surgery)

Delivery of site-specific workshops in local departments (e.g. anaesthesia, medicine, obstetrics/gynaecology, ophthalmology, surgery)

Creation of a *Working Group on Teaching Professionalism*, charged with developing recommendations on teaching professionalism in an integrated fashion at the undergraduate level

Creation of a *Working Group on Evaluating Physicianship*, mandated to recommend strategies for evaluating professionalism in a systematic and integrated manner at the undergraduate level

Creation of a *Task Force on Physicianship* responsible for re-designing our undergraduate curriculum with a renewed emphasis on the importance of the doctor as healer and professional

Development of a professionalism mini-evaluation exercise (P-MEX), modelled after the mini-CEX,³⁰ which is currently being pilot-tested and will eventually be used at the undergraduate and postgraduate level. The behaviours used in the P-MEX are derived from the workshop on *Evaluating the Physician as Healer and Professional*

Design and delivery of a workshop on *Teaching Doctor–Patient Communication Skills: Setting the Course for McGill*

outpatient clinic, mostly through ‘informal teaching’ and role modelling. As 1 participant said:

‘I now identify professionalism issues as they arise in the course of clinical discussions and spend a few minutes discussing commitment, morality/ethics, integrity/honesty and competence.’

DISCUSSION

Five years of experience in conducting faculty development activities to teach and evaluate professionalism has led to the following observations. Firstly, it seems possible to plan and implement a longitudinal faculty development programme and have an impact, not only on what and how faculty members say they teach, but also on how they practise. Based on our preliminary results, it appears that our faculty members were able to expand their teaching of professionalism, in part because they had become more knowledgeable about the cognitive base underlying professionalism, strategies for teaching this subject matter, and methods of evaluation. The 152 individuals who participated in at least 1 activity also provided an invaluable pool of teachers who could serve as group leaders and, we hope, better role models.

Secondly, this initiative allowed our medical school to agree on the cognitive base of professionalism, the attributes and characteristics of a professional, and the behaviours to be encouraged in students, residents and faculty. As Whitcomb²³ said, this is key in order for professionalism to be taught. The faculty also came to realise that this cognitive base must be communicated to students and that diverse teaching and evaluation strategies should be considered.

Thirdly, this initiative demonstrated that faculty development can be a powerful tool in initiating and setting the direction for curricular change. Lanphear and Cardiff²⁴ talked about the need for faculty development to support curriculum change; this initiative is an example of faculty development leading to change. As our results show, this programme stimulated desire for curricular change and reform, with a focus on the doctor as healer and professional. It also led to the development of better methods of evaluating professional behaviour. Without question, the demands of accrediting, licensing and certifying bodies were major motivating factors, but within the local context, this initiative raised awareness and channelled the faculty’s efforts. Many of the educational initiatives currently underway (outlined in Table 2) would probably not have

occurred as rapidly, or in their current form, without both the stimulus and the direction of this programme. This observation is in line with that of Rubeck and Witzke,²⁵ who spoke of the need to develop teachers to facilitate curricular change. It also touches on the beliefs of Wilkerson and Irby,²⁶ who highlighted the need for faculty development to initiate organisational change. Lipetz and colleagues²⁷ raised the important question of who the client is in faculty development. In our context, the client was represented by the faculty member, the student and the medical school.

Professionalism is among the competencies required by many organisations. It appears that this approach, developed for professionalism, could well be applied to other competencies required by the Accreditation Council for Graduate Medical Education (ACGME)⁵ or CanMEDS roles.⁸ However, other methods of faculty development could also be considered. Upon reflection, we would suggest the continued use of think tanks to promote consensus and buy-in, and workshops to transmit a cognitive base and stimulate discussion around applicability, strategies and commonly encountered problems. However, we would also suggest the use of more department-based activities to reach larger numbers of faculty members, as well as peer coaching²⁸ and self-directed learning initiatives which, to date, have been underutilised educational strategies. In our own setting, we have directly targeted 152 faculty members through centrally based activities, and approximately another 600 through site-specific activities. However, we must now build on these early successes, reinforce current gains and, more importantly, reach out to those who have not yet participated. We also need to evaluate the impact of our activities in a more rigorous fashion over the longterm.

In conclusion, we hope that some of the lessons we have learned can be applied to other contexts. At the *individual level*, we need to remember the importance of building motivation for learning, overcoming resistance, and making the implicit explicit. At the *programme level*, we need to develop programmes that focus on content and methods, for teaching and evaluation. Appropriate faculty development strategies²⁹ must be utilised, and conceptual frameworks must be provided to promote reflection and application to specific contexts. We should also incorporate follow-up tasks and activities, and above all, make learning relevant and enjoyable. At the *systems level*, we need to promote buy-in, address the organisational climate and culture, identify opportunities for

teaching and learning, and train the trainers, thus facilitating dissemination.

To be effective in this area, teachers must demonstrate knowledge in the core content of professionalism and skills in teaching and evaluating this content area. As faculty developers, we need to work within the culture, respond to specific needs, provide diverse programmes, incorporate appropriate theoretical frameworks, remain relevant and practical, work to overcome common problems, and evaluate effectiveness. It has been said that faculty development activities should move beyond instructional improvement and target 3 levels: the individual, the programme and the system.²⁷ This initiative has attempted to target all 3 levels.

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REFERENCES

- 1 Cruess RL, Cruess SR. Teaching medicine as a profession in the service of healing. *Acad Med* 1997;**72**:941–52.
- 2 American Board of Internal Medicine (ABIM). *Project Professionalism*. (Revised.) 1999. <http://www.abimfoundation.org/professional.html>.
- 3 Swick HM. Towards a normative definition of professionalism. *Acad Med* 2000;**75**:612–6.
- 4 American Association of Medical Colleges (AAMC). *Learning Objectives for Medical Student Education. Guidelines for Medical Schools*. Washington, District of Columbia: AAMC 1998.
- 5 Accreditation Council for Graduate Medical Education (ACGME) Outcomes Project, American Board of Medical Specialties. *Toolbox of Assessment Methods*. 2000. <http://www.acgme.org/outcome/assess/toolbox.asp>.
- 6 National Board of Medical Examiners (NBME). *Embedding Professionalism in Medical Education: Assessment as a Tool for Implementation*. http://www.nbme.org/PDF/NBME_AAMC_ProfessReport.pdf.
- 7 General Medical Council. *Good Medical Practice*. London: GMC 1995.
- 8 Royal College of Physicians and Surgeons of Canada, CanMEDS 2000 Project. *Skills for the New Millennium*:

- Report of the Societal Needs Working Group.* http://rcpsc.medical.org/canmeds/CanMEDS_e.pdf.
- 9 Spencer J. Teaching about professionalism. *Med Educ* 2003;**37**:288–9.
 - 10 Cruess SR, Cruess RL. Professionalism must be taught. *BMJ* 1997;**315**:1674–7.
 - 11 Gordon J. Fostering students' personal and professional development in medicine: a new framework for PPD. *Med Educ* 2003;**37**:341–9.
 - 12 Arnold L. Assessing professional behaviour: yesterday, today and tomorrow. *Acad Med* 2002;**77**:502–15.
 - 13 Centra JA. Types of faculty development programmes. *J Higher Educ* 1978;**49**:151–62.
 - 14 Hafferty FW. Beyond curriculum reform: confronting medicine's hidden curriculum. *Acad Med* 1998;**73**:403–7.
 - 15 Ginsburg S, Regehr G, Stern D, Lingard L. Context, conflict and resolution: a new conceptual framework for evaluating professionalism. *Acad Med* 2000;**75**(10):6–11.
 - 16 Papadakis M, Osborn EH, Cooke M, Healy K. A strategy for the detection and evaluation of unprofessional behaviour in medical students. *Acad Med* 1999;**74**:980–90.
 - 17 Van Luijk S, Smeets J, Smits J, Wolfhagen I, Perquin M. Assessing professional behaviour and the role of academic advice at the Maastricht Medical School. *Med Teacher* 2000;**22**:168–77.
 - 18 Cruess SR, Johnston S, Cruess RL. Professionalism: a working definition for medical educators. *Teach Learn Med* 2004;**16**:74–6.
 - 19 Steinert Y. Making the implicit explicit: an untapped teaching skill. *Newsletter Section Teachers College Family Physicians Canada* 2003;**11**:11–2.
 - 20 Kenny NP, Mann KV, MacLeod H. Role modelling in physicians' professional formation: reconsidering an essential but untapped educational strategy. *Acad Med* 2003;**78**:1203–10.
 - 21 Stufflebeam DL. The CIPP model for program evaluation. In: Madaus GF, Scriven M, Stufflebeam DL, eds. *Evaluation Models*. Boston: Kluwer-Nijhoff 1983.
 - 22 Popham WJ. *Educational Evaluation*. Boston: Allyn and Bacon 1993.
 - 23 Whitcomb M. Fostering and evaluating professionalism in medical education. *Acad Med* 2002;**77**:473–4.
 - 24 Lanphear JH, Cardiff RD. Faculty development: an essential consideration in curriculum change. *Arch Pathol Lab Med* 1987;**111**:487–91.
 - 25 Rubeck RF, Witzke DB. Faculty development: a field of dreams. *Acad Med* 1998;**73**(9):S33–S37.
 - 26 Wilkerson L, Irby DM. Strategies for improving teaching practices: a comprehensive approach to faculty development. *Acad Med* 1998;**73**:387–96.
 - 27 Lipetz M, Bussigel M, Foley R. Rethinking faculty development. *Med Teacher* 1986;**8**:137–44.
 - 28 Hekelman FP, Flynn S, Glover PB, Galazka SS, Phillips JA. Peer coaching in clinical teaching. *Evaluation Health Professions* 1994;**17**:366–81.
 - 29 Steinert Y. Faculty development in the new millennium: key challenges and future directions. *Med Teacher* 2000;**22**:44–50.
 - 30 Norcini JJ, Blank LL, Duffy D, Fortna GS. The mini-CEX: a method for assessing skills. *Ann Intern Med* 2003;**138**:476–81.

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