The Essential Role of Medical Ethics Education in Achieving Professionalism: The Romanell Report

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Abstract

This article—the Romanell Report—offers an analysis of the current state of medical ethics education in the United States, focusing in particular on its essential role in cultivating professionalism among medical learners. Education in ethics has become an integral part of medical education and training over the past three decades and has received particular attention in recent years because of the increasing emphasis placed on professional formation by accrediting bodies such as the Liaison Committee on Medical Education and the Accreditation Council for Graduate Medical Education. Yet, despite the development of standards, milestones, and competencies related to professionalism, there is no consensus about the specific goals of medical ethics education, the essential knowledge and skills expected of learners, the best pedagogical methods and processes for implementation, and optimal strategies for assessment. Moreover, the quality, extent, and focus of medical ethics instruction vary, particularly at the graduate medical education level. Although variation in methods of instruction and assessment may be appropriate, ultimately medical ethics education must address the overarching articulated expectations of the major accrediting organizations. With the aim of aiding medical ethics educators in meeting these expectations, the Romanell Report describes current practices in ethics education and offers guidance in several areas: educational goals and objectives, teaching methods, assessment strategies, and other challenges and opportunities (including course structure and faculty development). The report concludes by proposing an agenda for future research.

In 1985, the landmark article "Basic Curricular Goals in Medical Ethics," known as the DeCamp Report, argued that basic instruction in medical ethics should be a requirement in all U.S. medical schools.[1] That same year, the Liaison Committee on Medical Education (LCME) introduced standards stipulating that in U.S. medical schools "ethical, behavioral, and socioeconomic subjects pertinent to medicine must be included in the curriculum and that material on medical ethics and human values should be presented."[2] More recently, medical educators and accrediting organizations have expanded the scope of ethics education guidelines, manifested in part by requirements that learners at all levels receive instruction addressing professional formation to prepare them for a lifelong commitment to professionalism in patient care, education, and research.[3] A physician's ability and willingness to act in accordance with accepted moral norms and values is one key component of professional behavior; as a result, educational objectives relating to ethics are now often incorporated into broader goals for professionalism education.

Despite broad consensus on the importance of teaching medical ethics and professionalism, there is no consensus about the specific goals of medical ethics education for future physicians, the essential knowledge and skills learners should acquire, the best methodologies and processes for instruction, and the optimal strategies for assessment.[4–8] Moreover, the quality and extent of instruction, particularly at the graduate medical education (GME) level, varies within and across institutions and residency training programs.[9–11] Although such variation may be appropriate in light of differences in educational contexts, medical ethics education efforts must ultimately address the overarching expectations articulated by accrediting organizations. Variation raises concerns about whether all approaches succeed in meeting basic educational objectives, which leads to the question, "Which approaches to medical ethics education are most effective?"

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As members of PRIME with a particular interest in medical ethics education, we address in this report the essential role of such education in cultivating professionalism among medical learners. We previously described medical professionalism as (1) becoming scientifically and clinically competent; (2) using clinical knowledge and skills primarily for the protection and promotion

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of the patient's health-related interests, keeping self-interest systematically secondary; and (3) sustaining medicine as a public trust, rather than as a guild primarily concerned with protecting the economic, political, and social power of its members.[13]

We take our working definition of "medical ethics" from a prominent textbook on clinical ethics: "Clinical ethics concerns both the ethical features that are present in every clinical encounter and the ethical problems that occasionally occur in those encounters."[15] In addition, we consider medical ethics to include attention to determining what ought to be done when problems or values conflicts are present: that is, determining the right course of action or a morally acceptable choice from among the available options.

We consider it self-evident that there is a close relationship between medical ethics and professionalism and that the extensive body of scholarship on medical ethics informs how we think about professionalism. However, a thorough analysis of this relationship is beyond the scope of this article. We do not address the important role of humanities education in the pursuit of professional formation in this report; we plan to focus on that in future work. Additionally, although our focus in this article is on medical ethics education during medical school and residency training, we acknowledge that the educational continuum extends on either side of this focus. We believe that medical ethics and professionalism should also be made a priority during premedical studies and reinforced post residency through continuing medical education (CME).

In this report, with the aim of aiding medical ethics educators in meeting the articulated expectations of accrediting organizations, we address the following aspects of medical ethics education in medical schools and residency programs: goals and objectives, teaching methods, assessment strategies, and additional challenges and opportunities. We conclude by recommending next steps and areas for future study.

Goals and Objectives

Although most educators agree that the central goal of medical ethics education is to promote excellence in patient care, there are diverse views about how best to achieve this aim.[4] Whereas some educators emphasize the importance of developing future physicians' character, others hold that shaping their behavior is a more appropriate focus. Still others believe that ethics and professionalism cannot be taught; rather, virtuous individuals must be selected through the medical school admission process. The debate among proponents of these schools of thought is unlikely to be resolved in the near future.

Although medical schools should seek to select students with the "right" character and attitudes, those qualities are difficult to assess accurately. Further, effecting character change in the limited time available for medical ethics and professionalism education seems challenging at best. The practical challenges of shaping and evaluating character traits logically lead to the alternative: cultivating *behavior* that exemplifies ethical and professional virtues. The foundation of this approach is to provide trainees with conceptual tools for seeing, preventing, analyzing, and resolving the ethical dilemmas encountered in clinical medicine. Although an argument can be made that this pragmatic approach is not ideal, it is a workable compromise that may be the best available option given existing constraints.

This focus on behavioral goals is supported by the major accrediting bodies for U.S. medical schools and residency programs, which have established behavior-based standards and competencies that learners must achieve during training. For example, LCME standard ED-23 states: "A medical education program must include instruction in medical ethics and human values and require its medical students to exhibit scrupulous ethical principles in caring for patients and in relating to patients' families and to others involved in patient care."[16] The LCME specifies that students' behavior must be observed and assessed to ensure that it is in line with accepted ethical guidelines.

Similarly, the Accreditation Council for Graduate Medical Education (ACGME) has defined six core competencies[17] and has called for the development of milestones that establish benchmarks for the behaviors that physicians completing U.S. residency programs must demonstrate for each competency. One of the six core competencies specifically focuses on professionalism, stating, "Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles." Residents are expected to show compassion and respect for others, put patients' needs above their own, respect patients' autonomy, act accountably, and demonstrate sensitivity to patients from diverse backgrounds. The ACGME has left it to individual specialties to define the milestones that compose this core competency. As an example, the professionalism milestones identified by the American Board of Internal Medicine are presented in Table 1. It should be noted that all six of the ACGME core competencies involve various aspects of professionalism, explicitly or implicitly.

With respect to the continuum of medical learning, there is interest in extending the focus on competencies and milestones beyond GME. Some educators suggest integrating them into undergraduate medical education (UME) as well as addressing them as part of CME and maintenance of certification.[18]

In addition, attention has been directed at linking milestones to instances of actual clinical practice by defining entrustable professional activities (EPAs) and using them as a basis for assessing learner performance.[19] To successfully and independently perform one of these core clinical activities, learners must not only demonstrate the requisite knowledge, attitudes, and skills but also seamlessly integrate competencies, subcompetencies, and milestones. Some educators[18] have argued for tailoring EPAs to the learner's developmental level, which could serve to further integrate the learning continuum.

EPAs, milestones, and competencies define where learners are expected to be by the end of their training, but they do not specify the detailed objectives that educators should use to lead them there. Among ethics educators, there is no consensus on a set of specific objectives for medical ethics education, although several lists of key skills and topics have been put forward.[20–22] Our attempt to synthesize current thought on a minimum set of objectives for medical ethics education is presented

Table 1

Professionalism Milestones for Residents in ACGME-Accredited Internal Medicine Residency Programs[a]

Professionalism subcompetency	Aspirational milestone
Has professional and respectful interactions with patients, caregivers, and members of the interprofessional team (e.g. peers, consultants, nursing, ancillary professionals and support personnel). (PROF1)	• Role models compassion, empathy, and respect for patients and caregivers • Role models appropriate anticipation and advocacy for patient and caregiver needs • Fosters collegiality that promotes a high-functioning interprofessional team • Teaches others regarding maintaining patient privacy and respecting patient autonomy
Accepts responsibility and follows through on tasks. (PROF2)	• Role models prioritizing multiple competing demands in order to complete tasks and responsibilities in a timely and effective manner • Assists others to improve their ability to prioritize multiple, competing tasks
Responds to each patient's unique characteristics and needs. (PROF3)	• Role models professional interactions to negotiate differences related to a patient's unique characteristics or needs • Role models consistent respect for patient's unique characteristics and needs
Exhibits integrity and ethical behavior in professional conduct. (PROF4)	• Assists others in adhering to ethical principles and behaviors including integrity, honesty, and professional responsibility • Role models integrity, honesty, accountability, and professional conduct in all aspects of professional life • Regularly reflects on personal professional conduct

Abbreviations: ACGME indicates Accreditation Council for Graduate Medical Education; PROF, professionalism.
[a]*Source:* Accreditation Council for Graduate Medical Education, American Board of Internal Medicine. Internal Medicine Milestone Project.[77]

in List 1. These objectives apply to both medical students and residents, with greater proficiency expected of higher-level trainees. This list was developed collaboratively by our group of experienced educators and draws on relevant empirical studies and other published literature.[4,6,9,20,21,23] It is important to emphasize that this list represents what we consider to be the basic requirements for medical ethics education. We acknowledge that other objectives to promote professionalism in learners (i.e., objectives incorporating other specific skills and topics) could be added to this list.

For comparison, we have summarized the objectives for medical ethics education presented in the 1985 DeCamp Report[1] in List 2. The objectives proposed in this report (List 1) differ from the earlier objectives in several ways. First, our objectives are more comprehensive, which may reflect an increased emphasis on ethics and professionalism in medical training and therefore an expectation that more curricular time will be devoted to these topics. It may also reflect the broadening scope of the still-developing field of bioethics. A second difference between the objectives offered in the DeCamp and Romanell Reports is our inclusion of items that take into account the context in which medicine is practiced, particularly issues of access to health care and cultural competence. The inclusion of these items mirrors recent social trends—expanding awareness of socioeconomic inequalities, emphasizing the social determinants of health, and increasingly respecting and valuing diversity. Third, our expansion of ethical considerations beyond the patient–physician dyad to interprofessional interaction and self-care should be noted. An improved understanding of the important role of effective teams in preventing medical errors and in offering patients excellent care can explain our addition of an item on working within the medical team. The attention to self-care reflects a developing awareness that experiencing a loss of meaning in clinical practice and inadequate work–life balance can lead to waning commitment, dissatisfaction, and burnout,[24] and these in turn can be associated with lapses in professionalism.[25,26] Fourth, the DeCamp Report objectives emphasize moral reasoning and knowledge to be acquired in specific content areas, but devote less attention to specific skills to be developed. Our inclusion of more skills-based items in the Romanell Report objectives reflects accrediting agencies' move toward evaluation of learners' actual performance in clinical encounters and their achievement of corresponding milestones.

In addition to these differences in learning objectives, the Romanell Report devotes attention to several areas not addressed by the DeCamp Report: methods of teaching, assessment strategies, and additional challenges and opportunities. We now turn our attention to these issues.

Teaching Methods

There is no single, best pedagogical approach for teaching medical ethics and professionalism. Learning styles and institutional resources vary, so teaching methods need to be flexible and varied to reflect this diversity. For example, to address the ACGME professionalism subcompetency "sensitivity and responsiveness to a diverse patient population,"[17] an educator could deliver a conventional didactic lecture, present clinical cases, or show a "trigger tape" intended to inspire discussion and debate.[27] Similarly, articles that illuminate issues of diversity by presenting patient perspectives[28,29] or that address the evolution of different "worldviews" on health and healing could be assigned and discussed.[30] Another pedagogical technique is to invite learners to write reflective narratives about cases they have been involved in that have raised ethics issues.[31,32] Whenever possible, medical ethics and professionalism instruction should involve collaboration among faculty from different disciplines to reinforce the team approach required in clinical practice. In recent years, multidisciplinary contributions to professionalism teaching have expanded beyond the traditional fields of philosophy, history, literature, law, and social sciences to include applied methods from the arts such as improvisational theater exercises,[33] comics drawing,[34] creative writing practices,[35] and fine art study.[36–38]

List 1
Proposed Objectives for Medical Ethics Education

Upon completion of medical school or a residency training program, learners will, with an appropriate level of proficiency:

- Demonstrate an understanding of the concept of the physician as fiduciary and the historical development of medicine as a profession
- Recognize ethical issues that may arise in the course of patient care
- Utilize relevant ethics statements from professional associations to guide clinical ethical judgment and decision making
- Think critically and systematically through ethical problems using bioethical principles and other tools of ethical analysis
- Provide a reasoned account of professionally responsible management of ethical problems and act in accordance with those judgments
- Articulate ethical reasoning to others coherently and respectfully

Upon completion of medical school or a residency training program, learners will, with an appropriate level of proficiency, manage ethical challenges in a professional manner in the following areas:

- Protection of patient privacy and confidentiality
- Disclosure of information to patients, including medical errors and the delivery of bad news
- Assessment of patient decision-making capacity and issues related to surrogate decision making
- Shared decision making, including informed consent and informed refusal of medical interventions by patients
- Care at the end of life, including patient advance directives, withholding and withdrawing life-sustaining interventions, care for the dying, and determination of death
- Maternal–fetal medicine, including reproductive technologies and termination of pregnancy
- Pediatric and neonatal medicine
- Access to health care, including health care disparities, the health care system, and the allocation of scarce resources
- Cross-cultural communication, including cultural competency and humility
- Role of the health care professional's personal values in the clinical encounter, including the extent and limits of the right of conscience
- Conflicts of interest and of obligation in education, clinical practice, and research
- Research with human subjects, including institutional review boards
- Work within the medical team, including interprofessional interactions
- Concerns about colleagues, including impairment, incompetence, and mistakes
- Medical trainee issues, including disclosure of student status, the tension between education and best care for patients, the hidden curriculum, and moral distress
- Self-awareness, including professional identity and self-care
- Management of challenging patients/family members, including recognition of what the clinician may be contributing to the difficulty
- Social media
- Religion and spirituality
- Acceptance of gifts from patients, including grateful patient philanthropy

Educational theory suggests that spacing and repetition of content improve learning.[39] A medical ethics and professionalism curriculum is therefore most likely to result in sustained changes in reasoning and behavior when it is longitudinal, such that early educational interventions are reinforced or advanced by subsequent exposures. For example, a method for ethics case analysis introduced in the first year of medical school could be reinforced in clinical clerkships by asking students to apply that method to analyze ethical issues they are encountering in clinical settings.

In addition, learner-driven teaching strategies should be considered. For example, learners could identify clinical cases with ethics issues for discussion and take an active role in facilitating case discussions.

Ethics and professionalism education must strive to move learners from knowledge acquisition and skills development to behavior change in which excellent patient care is the goal (by way of achieving the ACGME core competencies). This is challenging, but—to borrow from the language of theater—script does not become performance without rehearsal. After students gain medical knowledge in the classroom, educators commonly employ role-play scenarios (often with simulated patients or in an "ethics OSCE" [objective structured clinical examination][40]) to help students practice translating their medical knowledge into skills (and as a means for demonstrating that knowledge) before they encounter the complexity of actual patients.[41–43] This approach is highly effective for teaching ethics and professionalism.[44,45]

Technological advances have increased the variety of options for teaching ethics and professionalism. Some materials are now available online, such as recorded lectures[46] or formal ethics courses.[47] Educators are also creating online content for their own classes, and the "flipped classroom" approach (where students watch lectures online, on their own, saving class time for discussion and application of the material) may complement (or replace) the traditional approach of in-person lectures.[48] Educators should be open to these innovations and carefully evaluate which content is best delivered by new technologies. Advantages of moving lectures online include increasing both time for group discussions and the focus on students' critical thinking and behavioral skills during class. However, the use of innovative educational technologies may not be suited to situations in which learners do not consistently engage in outside preparation (e.g., busy residency programs with limited protected learning time). The wide range of available teaching methods gives educators opportunities to choose the pedagogical tools that are best suited to the jobs they are asked to do, but this variety also raises questions about which methods are most effective (an important area for future research).

Although it is not feasible in this report to offer a full account of how medical ethics education efforts should vary between GME and UME levels, it is worth noting some key differences. First, educational materials offered to residents can typically be more complex and contextual than those intended for medical students, and ethical issues can be more nuanced and discussed in greater depth. As a general point, educators

List 2

The DeCamp Report's Proposed Objectives of Medical Ethics Education[a]

- The ability to identify the moral aspects of medical practice
- The ability to obtain a valid consent or a valid refusal of treatment
- Knowledge of how to proceed if a patient is only partially competent or incompetent to consent or to refuse treatment
- Knowledge of how to proceed if a patient refuses treatment
- The ability to decide when it is morally justified to withhold information from a patient
- The ability to decide when it is morally justified to breach confidentiality
- Knowledge of the moral aspects of the care of patients with a poor prognosis, including patients who are terminally ill
- Additional areas considered for inclusion:
  - Distribution of health care
  - Abortion

[a]Objectives articulated in Culver et al, 1985.[1]

must recognize that any teaching session may involve learners at different levels of sophistication; accordingly, educators should tailor cases and teaching points to offer material appropriate to the range of learners with whom they are working. Second, differences in schedules and responsibilities require educators to adopt different approaches for teaching ethics and professionalism to medical students and residents. Whereas a variety of formats, including longitudinal courses, can generally be included in a medical school curriculum, finding opportunities for formal ethics and professionalism instruction can be more challenging in residency training programs where face-to-face educational sessions tend to take the form of sporadic, irregularly attended one-hour conferences. Although this conference format can be conducive to case-based discussions, educators need to be creative in turning these opportunities into a coherent curriculum.

Assessment Strategies

Faculty teaching ethics and professionalism cannot just assume that their pedagogical techniques achieve the intended goals. Rather, consistent with a broader trend in medical education, they are expected to demonstrate that what they are doing is working. Increasingly, they must justify the amount of curricular time allotted for medical ethics and professionalism education as well as any financial support they receive for such efforts.

Toward these ends, there is evidence that medical ethics education improves certain outcomes. Specifically, studies have shown an improvement in learner awareness,[49] attitudes,[50] knowledge,[51] confidence,[52] decision making,[53] and moral reasoning.[54] However, a more robust evidence base is required to examine the relationships between medical ethics education, physician performance, and—ideally—patient outcomes. Accrediting bodies, medical school deans, and residency program directors seek assessment tools to evaluate whether educational programs are effective in producing prepared clinicians. Further, it is in patients' interests to have (justified) confidence that their physicians have been trained adequately in ethics and professionalism.

A starting point for assessment is linking evaluation to learning objectives when doing so is possible and sensible. This requires careful consideration of the nature of individual objectives, whether individual objectives can be evaluated, and the complexity of the material being taught. If assessment is viewed as feasible, one model for linking learning objectives to assessment is the SMART approach[55]—creating objectives that are specific, measurable, action oriented, reasonable, and time bound. For example, "At the end of this session participants will describe the 5 components of the R.E.S.P.E.C.T. model for cross-cultural communication."[56] Objectives of this type reflect a focus on behavior-based educational goals, as discussed earlier, rather than an emphasis on character development.

Varied assessment strategies may be needed to determine whether ethics and professionalism learning objectives have been met. Possible strategies include, but are not limited to, learner self-assessment; learner reflection; evaluation of changes in learner empathy, cynicism, and attitudes; performance portfolios; traditional, knowledge-based exams; use of clinical evaluation exercises; use of OSCEs and other exercises with simulated patients; written feedback from faculty after small-discussion-group modules; and 360-degree feedback from peers, faculty, nurses, staff, patients, and families in the patient care context.[57–62] As noted above, an emerging assessment strategy is using defined EPAs to evaluate learner performance in the context of actual clinical activities. A recent article presents one institution's efforts related to medical ethics education to integrate goals, methodology, curriculum, and assessment.[23]

Although an expectation of performance-oriented assessment is challenging for many areas of the medical curriculum, it is especially challenging for ethics and professionalism: Some aspects of ethics and professionalism are not performance related, and even those aspects that are "behavorial" may be difficult to measure.[63] For example, some authors have pointed out that certain qualities of character desirable in any health care professional (e.g., humility, compassion, integrity, altruism) are not measureable in any conventional, quantitative sense.[64,65]

Further, evaluators of educational programs tend to focus on formal course work rather than the hidden curriculum,[66] and to look for *improvement* rather than *lack of erosion.* Yet, there is substantial evidence that manifestations of professional behaviors decrease throughout the medical socialization process.[64,67] Arguably, evaluation should also include assessing the learning environment of educational institutions[68] and measuring the ability of interventions to inoculate learners against diminishment of professional behaviors.[69]

Additionally, if the primary goal of medical ethics and professionalism education is improved patient care, we need to develop methods of connecting educational interventions to patient outcomes. One recent study provides an example of this by documenting a relationship between physician empathy and improved glucose control.[70]

If assessment is limited to what is formally taught and to what can be quantitatively assessed, or there is a requirement of positive change, we risk evaluating some of the most important qualities of professionalism in ways that fail to capture their nuances. Given this, some authors have argued for alternative strategies to assess the presence of such qualities and the corresponding success of educators' efforts to cultivate them in learners.[71,72] Clearly, there needs to be a good fit between what is being assessed and the strategies used to assess it. Quantitative ratings should not be the sole means to evaluate excellence in professionalism; rather, they should be complemented by qualitative assessments. This combined approach will enable richer, contextualized evaluations, but it also presents the challenge of identifying evaluators with the observational, perceptual, and analytical capabilities to conduct these assessments.

The phenomenon of latency also must be considered in the assessment of ethics and professionalism instruction: Outcomes of interest may not manifest themselves for years. One goal of medical ethics education is to prepare learners to address difficult ethical issues when they arise, yet learners may not encounter a particular ethics problem until years after they were taught about it in the classroom. However, their later performance may be profoundly affected by recollecting a distant reading or in-class discussion. This scenario creates challenges for evaluation. Accordingly, professionalism and ethics educators should develop long-term evaluation and/or research strategies to supplement the assessment of more immediate outcomes. In List 3, we propose items to assess and a "to-do" list (i.e., work to be done) with respect to assessment in medical ethics education.

List 3

Assessment in Medical Ethics Education: Items to Assess in Medical Learners and a "To-Do" List

Items to assess

- Mastery of a basic body of medical ethics content
- Mastery of the intellectual skills for ethical analysis and reasoning/argument
- Performance in core bioethics behavioral skills: obtaining meaningful informed consent or informed refusal, assessing decision-making capacity, breaking bad news, analyzing a case with ethics issues, and using a shared decision-making approach with patients

Assessment "to-do" list

- Work with clinical colleagues to develop medical ethics components of passports and other learner self-assessment tools, as well as tools for faculty to use in assessing medical students' and residents' learning on clinical rotations
- Work with clinical colleagues on medical ethics components of tools for summative assessment of medical students and residents
- Work with colleagues who are specialists in medical education to ensure that medical ethics curricular design and assessment take into account variation in learning styles of adult learners
- Develop assessment strategies that address the relationships between medical ethics education and physician performance and patient outcomes
- Utilize a range of assessment strategies, both quantitative and qualitative, to ensure a "goodness of fit" between what is being assessed and the strategies used to assess it
- Develop long-term evaluation/research strategies to supplement assessment of more immediate outcomes (to address the phenomenon of latency)

Additional Challenges and Opportunities

Beyond the challenges we have already noted related to goals and objectives, teaching methods, and assessment strategies, additional challenges—as well as opportunities—exist in medical ethics education. First, training in ethics and professionalism exists within the larger context of the health care system and medical practice. Numerous external factors affecting doctor–patient encounters have negative influences on the learning environment and, thus, have the potential to undermine the foundation of medical education. When learners do not see what is taught in the classroom being honored in the clinical setting, they have difficult choices to make.[73,74] An institution's learning environment can either exacerbate moral erosion, burnout, and impairment among learners, or it can support learners by creating a culture that prioritizes learner well-being.[3] In response to this challenge, medical ethics and professionalism educators need to (1) provide learners with tools that can help them reconcile the mixed messages they may be receiving, and (2) measure, monitor, and improve their learning environments.[68]

Second, where and how to locate medical ethics and professionalism education in the overall curriculum of a medical school or residency training program is an important—and contested—issue. Careful consideration should be given to the timing and structure of this instruction and the level of expertise needed to deliver it.

Some medical schools have recently undertaken curricular revisions that reflect a philosophical change in approach to ethics education.[75] Instead of offering medical ethics and professionalism as a discrete course, instruction is woven throughout the entire curriculum in a developmentally appropriate way. The justification for this integrated approach is that ethics is germane to all of medicine—from clinical decision making at the bedside and clinical investigations to policy considerations at the health care delivery system level—and should be incorporated into the curriculum wherever and whenever it is relevant.

There is considerable debate about the benefits and disadvantages of integrated approaches. It is important that ethics and professionalism education not be integrated into the curriculum to the point of being invisible, because students need to be able to identify the discipline of medical ethics and be familiar with its literature. In our view, the best practice may be to seek a healthy balance between emphasizing ethics and professionalism instruction and seamlessly integrating it into clinical education. However, appropriate incorporation of this content requires coordination with other course directors who may not be committed to its inclusion. Mechanisms must be put in place to ensure the inclusion of ethics material on other courses' exams and to enable formative and summative determinations of students' mastery of ethics and professionalism on an annual basis. Further, when ethics and professionalism teaching is woven into courses and clerkships directed by

non-ethics faculty, there are questions about who will be responsible for teaching this material, what level of expertise is needed, and how much time should be set aside for this teaching (in the context of busy schedules).

Third, faculty considerations factor significantly into the teaching and evaluation of medical learners. Successful medical ethics and professionalism education efforts require a sufficient number of faculty with appropriate training who are committed to establishing meaningful, ongoing relationships with learners to act as role models, share their own experiences, and teach, observe, give feedback to, and ultimately evaluate learners. Achieving success requires financial support, recognition, and reward for faculty educators. This is particularly challenging in an era of fiscal constraint because nonphysician faculty educators (i.e., those with PhDs and JDs) do not generate clinical revenue, whereas clinician educators tend to generate revenue by seeing patients, not by teaching. In some medical school settings, participation in medical education is implicitly devalued by the fact that teaching is a voluntary, nonremunerated activity—a discouraging message for all but the most committed educators. Until the issue of how to pay educators and reward them academically for their efforts is resolved, the quality of medical ethics and professionalism education efforts is likely to suffer.

Finally, faculty considerations are relevant when addressing expectations for assessment. If institutions strive for defensible *quantitative* evaluations of learner behavior, they need to ensure that there are enough qualified faculty observers to make a sufficient number of observations to achieve reliability.[60] Similarly, if assessment of some desired outcomes and qualities requires a *qualitative* approach, then faculty evaluators must be skilled at listening, observing, and "reading" learners to truly understand and "see" them.[76]

Moving Forward: Key Next Steps and Considerations

We believe that this report on the state of medical ethics education offers cause for optimism. In the three decades since publication of the DeCamp Report,[1] medical ethics has become a core component of the medical school curriculum. Further, the emphasis on ethics in the ACGME's core competencies—especially the professionalism competency—indicates that medical ethics education is a valued component of residency training as well.

However, our report also identifies many challenges facing medical ethics educators. First, there is no consensus about specific educational objectives for medical ethics and professionalism. Second, several pedagogical methods have been shown to offer some benefit to learners, but the supporting data are rarely robust, and educational approaches vary greatly between programs and institutions. Third, increasing pressure to demonstrate effectiveness raises particular challenges for faculty teaching medical ethics and professionalism because these educational efforts do not always produce short-term, quantitatively measurable improvements. Finally, the "hidden curriculum"[66] can undermine learners' professional development, creating a need for attention to the learning environment and for widespread faculty development that would require significant resources and expertise.

Addressing these challenges requires a rigorous, systematic, and interdisciplinary approach. Although this is a daunting task, we propose the following research questions as first steps toward a comprehensive agenda for scholarship, both empirical (including qualitative and quantitative methods) and conceptual:

- *What specific role does medical ethics education play in supporting professional formation?* Research that answers this question would help focus medical ethics education efforts as they relate to professionalism and potentially provide a rationale for financial support.
- *What constitutes a consensus list of specific educational objectives for medical ethics education?* Research that establishes and leads to the dissemination of such a list would help ensure that all learners receive an agreed-upon basic level of medical ethics education.
- *What are the strengths and weaknesses of pedagogical approaches used in medical ethics education, and which are associated with better learner outcomes?* Research that addresses this issue would help educators make informed choices from a long list of possible teaching strategies.
- *How are medical ethics and professionalism education associated with learner performance and patient outcomes?* Research that answers this question would help establish a much-needed evidence base linking education to outcomes. Such an evidence base could, in turn, provide additional rationale for financial support of these efforts.
- *What constitutes an evidence-based portfolio of effective medical ethics educational interventions for medical students, residents, physician faculty, and practicing physicians?* Work on this issue could lead to the creation of a helpful resource for educators who do not have time to develop a portfolio themselves.
- *Which assessment tools are most effective at measuring outcomes of interest in medical ethics education? Which assessment strategies should be paired with which learner and patient outcomes?* Research that responds to these questions would help educators select assessment strategies that are appropriate for the outcome of interest and proven to be effective. Work in this area should address the latency challenge noted above and recognize the limitations of quantitative measurement with respect to certain aspects of ethics and professionalism.

Another challenge is that few interinstitutional opportunities exist for medical educators to explore these problems and seek answers to these questions. One goal of the Academy for Professionalism in Health Care is to provide a forum for all stakeholders—including medical ethics, humanities, and professionalism educators—to come together to work on these challenging issues.[14]

In conclusion, we believe that the medical ethics curriculum can be improved by focusing it on professional formation as preparation for a lifelong commitment to professionalism in patient care, education, and research. It will require the hard work of many to ensure that medicine preserves its status as a caring profession that situates the needs of patients as its top priority.

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References

1 Culver CM, Clouser KD, Gert B, et al. Basic curricular goals in medical ethics. N Engl J Med. 1985;312:253–256.
2 Bickel J. Human values teaching program in the clinical education of medical students. J Med Educ. 1987;62:369–378.
3 Rabow MW, Remen RN, Parmelee DX, Inui TS. Professional formation: Extending medicine's lineage of service into the next century. Acad Med. 2010;85:310–317.
4 Eckles RE, Meslin EM, Gaffney M, Helft PR. Medical ethics education: Where are we? Where should we be going? A review. Acad Med. 2005;80:1143–1152.
5 Goldie J. Review of ethics curricula in undergraduate medical education. Med Educ. 2000;34:108–119.
6 Braddock C, Fryer-Edwards K; Task Force on Ethics and Humanities Education in Undergraduate Medical Programs. Report on Ethics and Humanities Education in Undergraduate Medical Programs. Chicago, Ill: American Society for Bioethics and Humanities; May 2009. http://www.asbh.org/publications/content/lcme.html. Accessed January 21, 2015.
7 Persad GC, Elder L, Sedig L, Flores L, Emanuel EJ. The current state of medical school education in bioethics, health law, and health economics. J Law Med Ethics. 2008;36:89–94.
8 Lakhan SE, Hamlat E, McNamee T, Laird C. Time for a unified approach to medical ethics. Philos Ethics Humanit Med. 2009;4:13.
9 Lehmann LS, Kasoff WS, Koch P, Federman DD. A survey of medical ethics education at U.S. and Canadian medical schools. Acad Med. 2004;79:682–689.
10 DuBois JM, Burkemper J. Ethics education in US medical schools: A study of syllabi. Acad Med. 2002;36:489–497.
11 Perkins HS. Teaching medical ethics during residency. Acad Med. 1989;64:262–266.
12 Doukas DJ, McCullough LB, Wear S; Project to Rebalance and Integrate Medical Education (PRIME) Investigators. Medical education in medical ethics and humanities as the foundation for developing medical professionalism. Acad Med. 2012;87:334–341.
13 Doukas DJ, McCullough LB, Wear S, et al; Project to Rebalance and Integrate Medical Education (PRIME) Investigators. The challenge of promoting professionalism through medical ethics and humanities education. Acad Med. 2013;88:1624–1629.
14 Academy for Professionalism in Health Care. Mission and Vision. http://innovatepedsgme.org/about/mission/index.cfm. Accessed February 24, 2015.
15 Jonsen AR, Siegler M, Winslade WJ. Clinical Ethics. 5th ed. New York, NY: McGraw-Hill Inc.; 2002.
16 Liaison Committee on Medical Education. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the M.D. degree. June 2013. https://www.lcme.org/publications/functions2013june.pdf. Accessed January 21, 2015.
17 Accreditation Council for Graduate Medical Education. ACGME Common Program Requirements. July 2013. http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/CPRs2013.pdf. Accessed February 23, 2015.
18 Carraccio C, Burke AE. Beyond competencies and milestones: Adding meaning through context. J Grad Med Educ. 2010;2:419–422.
19 ten Cate O, Scheele F. Competency-based postgraduate training: Can we bridge the gap between theory and clinical practice? Acad Med. 2007;82:542–547.
20 Miles SH, Lane LW, Bickel J, Walker RM, Cassel CK. Medical ethics education: Coming of age. Acad Med. 1989;64:705–714.
21 Lehrmann JA, Hoop J, Hammond KG, Roberts LW. Medical students' affirmation of ethics education. Acad Psychiatry. 2009;33:470–477.
22 Manson H. The need for medical ethics education in family medicine training. Fam Med. 2008;40:658–664.
23 Favia A, Frank L, Gligorov N, et al. A model for the assessment of medical students' competency in medical ethics. AJOB Prim Res. 2013;4:68–83.
24 Institute for the Study of Health and Illness. The Healer's Art Course. http://www.ishiprograms.org/programs/medical-educators-students/course-description/. Accessed February 3, 2015.
25 Dyrbye LN, Massie FS, Eacker A, et al. Relationship between burnout and professional conduct and attitudes among U.S. medical students. JAMA. 2010;304:1173–1180.
26 Spickard A Jr, Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. JAMA. 2002;288:1447–1450.
27 Haywood C Jr, Lanzkron S, Hughes MT, et al. A video-intervention to improve clinician attitudes toward patients with sickle cell disease: The results of a randomized experiment. J Gen Intern Med. 2011;26:518–523.
28 Carrese JA, Rhodes LA. Bridging cultural differences in medical practice. The case of discussing negative information with Navajo patients. J Gen Intern Med. 2000;15:92–96.
29 Sharma RK, Khosla N, Tulsky JA, Carrese JA. Traditional expectations versus US realities: First- and second-generation Asian Indian perspectives on end-of-life care. J Gen Intern Med. 2012;27:311–317.
30 Tilburt J, Geller G. Viewpoint: The importance of worldviews for medical education. Acad Med. 2007;82:819–822.
31 Moon M, Taylor HA, McDonald EL, Hughes MT, Beach MC, Carrese JA. Analyzing reflective narratives to assess the ethical reasoning of pediatric residents. Narrat Inq Bioeth. 2013;3:165–174.
32 Tschudy MM. The sound of silence. Ambul Pediatr. 2008;8:86.
33 Watson K. Serious play: Teaching medical skills with improvisational theater techniques. Acad Med. 2011;86:1260–1265.
34 Green MJ, Myers KR. Graphic medicine: use of comics in medical education and patient care. BMJ. 2010;340:c863.
35 Charon R. Narrative medicine: A model for empathy, reflection, professionalism, and trust. JAMA. 2011;286:1897–1902.
36 Naghshineh S, Hafler JP, Miller AR, et al. Formal art observation training improves medical students' visual diagnostic skills. J Gen Intern Med. 2008;23:991–997.
37 Dolev JC, Friedlaender LK, Braverman IM. Use of fine art to enhance visual diagnostic skills. JAMA. 2001;286:1020–1021.
38 Shapiro J, Rucker L, Beck J. Training the clinical eye and mind: Using the arts to develop medical students' observational and pattern recognition skills. Med Educ. 2006;40:263–268.
39 Hillary FG, Schultheis MT, Challis BH, et al. Spacing of repetitions improves learning and memory after moderate and severe TBI. J Clin Exp Neuropsychol. 2003;25:49–58.
40 Singer PA, Robb A, Cohen R, Norman G, Turnbull J. Performance-based assessment

of clinical ethics using an objective structured clinical examination. Acad Med. 1996;71:495–498.
41 Rosenbaum ME, Kreiter C. Teaching delivery of bad news using experiential sessions with standardized patients. Teach Learn Med. 2002;14:144–149.
42 Rinker B, Donnelly M, Vasconez HC. Teaching patient selection in aesthetic surgery: Use of the standardized patient. Ann Plast Surg. 2008;61:127–131.
43 Madan AK, Caruso BA, Lopes JE, Gracely EJ. Comparison of simulated patient and didactic methods of teaching HIV risk assessment to medical residents. Am J Prev Med. 1998;15:114–119.
44 Gisondi MA, Smith-Coggins R, Harter PM, Soltysik RC, Yarnold PR. Assessment of resident professionalism using high-fidelity simulation of ethical dilemmas. Acad Emerg Med. 2004;11:931–937.
45 Tekian A, McGuire CH, WC McGaghie CH, eds. Innovative Simulations for Assessing Professional Competence. Chicago, Ill: Department of Medical Education, University of Illinois at Chicago; 1999.
46 University of Louisville. James L. Stambaugh, Jr., Humanities in Medicine [lecture series]. https://itunes.apple.com/us/itunes-u/james-l.-stambaugh-jr.-humanities/id431433773?mt=10. Accessed February 23, 2015.
47 Harvard University's Justice With Michael Sandel [online course]. http://www.justiceharvard.org/. Accessed January 21, 2015.
48 Knewton. The Fipped Classroom: A New Method of Teaching Is Turning the Traditional Classroom on Its Head. http://www.knewton.com/flipped-classroom/. Accessed January 21, 2015.
49 Hayes RP, Stoudemire A, Kinlaw K, Dell ML, Loomis A. Qualitative outcome assessment of a medical ethics program for clinical clerkships: A pilot study. Gen Hosp Psychiatry. 1999;21:284–295.
50 Berseth CL, Durand R. Evaluating the effect of a human values seminar series on ethical attitudes toward resuscitation among pediatric residents. Mayo Clin Proc. 1990;65:337–343.
51 Schuh LA, Burdette DE. Initiation of an effective neurology resident ethics curriculum. Neurology. 2004;62:1897–1898.
52 Sulmasy DP, Geller G, Levine DM, Faden RR. A randomized trial of ethics education for medical house officers. J Med Ethics. 1993;19:157–163.
53 Elger BS, Harding TW. Terminally ill patients and Jehovah's Witnesses: Teaching acceptance of patients' refusals of vital treatments. Med Educ. 2002;36:479–488.
54 Self DJ, Olivarez M, Baldwin DC Jr. Clarifying the relationship of medical education and moral development. Acad Med. 1998;73:517–520.
55 International Training and Education Center for Health. Writing Good Learning Objectives. I-TECH Technical Implementation Guide #4. January 2010. http://www.go2itech.org/resources/technical-implementation-guides/TIG4.WritingLrngObj.pdf/view. Accessed February 23, 2015.
56 Welch M. Enhancing Awareness and Improving Cultural Competence in Health Care: A Partnership Guide for Teaching Diversity and Cross-Cultural Concepts in Health Professional Training. San Francisco, Calif: University of California at San Francisco; 1998.
57 Pinsky LE, Fryer-Edwards K. Diving for PERLS: Working and performance portfolios for evaluation and reflection on learning. J Gen Intern Med. 2004;19(5 pt 2):582–587.
58 Robb A, Etchells E, Cusimano MD, Cohen R, Singer PA, McKneally M. A randomized trial of teaching bioethics to surgical residents. Am J Surg. 2005;189:453–457.
59 Lewin LO, Olson CA, Goodman KW, Kokotailo PK. UME-21 and teaching ethics: A step in the right direction. Fam Med. 2004;36(suppl):S36–S42.
60 Arnold L. Assessing professional behavior: Yesterday, today, and tomorrow. Acad Med. 2002;77:502–515.
61 Savulescu J, Crisp R, Fulford KW, Hope T. Evaluating ethics competence in medical education. J Med Ethics. 1999;25:367–374.
62 Rees C, Shepherd M. The acceptability of 360-degree judgements as a method of assessing undergraduate medical students' personal and professional behaviours. Med Educ. 2005;39:49–57.
63 Ginsburg S, Regehr G, Mylopoulos M. From behaviours to attributions: Further concerns regarding the evaluation of professionalism. Med Educ. 2009;43:414–425.
64 McCammon SD, Brody H. How virtue ethics informs medical professionalism. HEC Forum. 2012;24:257–272.
65 Ginsburg S, Regehr G, Lingard L. Basing the evaluation of professionalism on observable behaviors: A cautionary tale. Acad Med. 2004;79(10 suppl):S1–S4.
66 Hafferty FW, Franks R. The hidden curriculum, ethics teaching, and the structure of medical education. Acad Med. 1994;69:861–871.
67 Hojat M, Vergare MJ, Maxwell K, et al. The devil is in the third year: A longitudinal study of erosion of empathy in medical school. Acad Med. 2009;84:1182–1191.
68 Shochet RB, Colbert-Getz JM, Wright SM. The Johns Hopkins Learning Environment Scale: Measuring medical students' perceptions of the processes supporting professional formation. Acad Med. 2015;90:810–818.
69 Doukas DJ. Charting a course of reform in medical ethics and humanities. Presented at: Project to Rebalance and Integrate Medical Education (PRIME) Workshop II; May 21, 2011; Louisville, Ky.
70 Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. Acad Med. 2011;86:359–364.
71 Misch DA. Evaluating physicians' professionalism and humanism: The case for humanism "connoisseurs." Acad Med. 2002;77:489–495.
72 Wald HS, Borkan JM, Taylor JS, Anthony D, Reis SP. Fostering and evaluating reflective capacity in medical education: Developing the REFLECT rubric for assessing reflective writing. Acad Med. 2012;87:41–50.
73 Myers MF, Herb A. Ethical dilemmas in clerkship rotations. Acad Med. 2013;88:1609–1611.
74 Berger JT. Moral distress in medical education and training. J Gen Intern Med. 2014;29:395–398.
75 Wiener CM, Thomas PA, Goodspeed E, Valle D, Nichols DG. "Genes to society"—the logic and process of the new curriculum for the Johns Hopkins University School of Medicine. Acad Med. 2010;85:498–506.
76 Charon R. Deep structures, or how our work improves the care of the sick. Presented at: Project to Rebalance and Integrate Medical Education (PRIME) 2012 National Conference; May 10, 2012; Louisville, Ky.

Reference cited in Table 1 only

77 Accreditation Council for Graduate Medical Education, American Board of Internal Medicine. Internal Medicine Milestone Project. October 2014. https://www.acgme.org/acgmeweb/Portals/0/PDFs/Milestones/InternalMedicineMilestones.pdf. Accessed February 23, 2015.