

# Development of Professionalism in Graduate Medical Education: A Case-Based Educational Approach From the College of American Pathologists' Graduate Medical Education Committee

Richard M. Conran, MD, PhD, JD<sup>1</sup>, Suzanne Zein-Eldin Powell, MD<sup>2</sup>, Ronald E. Domen, MD<sup>3</sup>, Cindy B. McCloskey, MD<sup>4</sup>, Mark D. Brissette, MD<sup>5</sup>, David A. Cohen, MD<sup>6</sup>, Lisa Ross Dixon, MD<sup>7</sup>, Melissa Robin George, DO<sup>3</sup>, Dita A. Gratzinger, MD, PhD<sup>8</sup>, Miriam D. Post, MD<sup>9</sup>, Cory A. Roberts, MD<sup>10</sup>, Aryn M. Rojiani, MD, PhD<sup>11</sup>, Charles Franklin Timmons Jr, MD, PhD<sup>12</sup>, Kristen Johnson, PhD<sup>13</sup>, and Robert D. Hoffman, MD, PhD<sup>14</sup>

## Abstract

Professionalism and physician well-being are important topics in academic medicine. Lapses in professional judgment may lead to disciplinary action and put patient's health at risk. Within medical education, students and trainees are exposed to professionalism in the institution's formal curriculum and hidden curriculum. Development of professionalism starts early in medical school. Trainees entering graduate medical education already have developed professional behavior. As a learned behavior, development of professional behavior is modifiable. In addition to role modeling by faculty, other modalities are needed. Use of case vignettes based on real-life issues encountered in trainee and faculty behavior can serve as a basis for continued development of professionalism in trainees. Based on the experience of program directors and pathology educators, case vignettes were developed in the domains of service, research, and education and subdivided into the areas of duty, integrity, and respect. General and specific questions pertaining to each case were generated to reinforce model behavior and overcome professionalism issues encountered

<sup>1</sup> Department of Pathology and Anatomy, Eastern Virginia Medical School, Norfolk, VA, USA

<sup>2</sup> Department of Pathology and Genomic Medicine, Houston Methodist Hospital, Houston, TX, USA

<sup>3</sup> Department of Pathology, Penn State Hershey Medical Center and College of Medicine, Hershey, PA, USA

<sup>4</sup> Department of Pathology, University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA

<sup>5</sup> The Joint Pathology Center, Silver Spring, MD, USA

<sup>6</sup> Emory University Hospital, Pathology and Laboratory Medicine, Atlanta, GA, USA

<sup>7</sup> Department of Pathology, Immunology and Laboratory Medicine, University of Florida College of Medicine, Gainesville, FL, USA

<sup>8</sup> Department of Pathology, Stanford University School of Medicine, Stanford, CA, USA

<sup>9</sup> Department of Pathology, University of Colorado—Anschutz Medical Campus, Aurora, CO, USA

<sup>10</sup> ProPath Associates, Dallas, TX, USA

<sup>11</sup> Department of Pathology, Augusta University-Medical College of Georgia, Augusta, GA, USA

<sup>12</sup> Department of Pathology, Childrens Medical Center of Dallas, Dallas, TX, USA

<sup>13</sup> College of American Pathologists, Northfield, IL, USA

<sup>14</sup> Department of Pathology, Microbiology, and Immunology, Vanderbilt University School of Medicine, Nashville, TN, USA

## Corresponding Author:

Richard M. Conran, Department of Pathology, East Virginia Medical School 700 West Olney Rd, Lewis Hall Room 2164, Norfolk, VA 23507, USA.

Email: conranrm@evms.edu



in the hidden curriculum. To address physician burnout, cases were generated to provide trainees with the skills to deal with burnout and promote well-being.

## Keywords

case vignettes, hidden curriculum, medical education, professionalism, physician well-being

Received January 19, 2018. Accepted for publication March 21, 2018.

## Introduction

Professionalism, defined as the aspiration “toward altruism, accountability, excellence, duty, service, honor, integrity, and respect for others,”<sup>1</sup> is undoubtedly an important component of medical education and the profession of medicine as a whole.<sup>2-4</sup> Lapses in professionalism have led to disciplinary actions by state medical licensing boards and have affected board certification by various medical specialties.<sup>5-7</sup> Unprofessional behavior is a cause for disciplinary action against medical students, residents, and fellows, and practicing physicians.<sup>5</sup> Physician well-being and professional burnout have also become important health-care issues.<sup>8-10</sup>

The Accreditation Council on Graduate Medical Education (ACGME) recognizing the importance of professionalism in medicine adopted professionalism along with the American Board of Medical Specialties as 1 of their 6 core competencies in 1999.<sup>11,12</sup> In 2013, the ACGME (Pathology Residency Review Committee [RRC]) and the American Board of Pathology in a joint initiative formulated its 27 residency training milestones that included 6 Milestones dedicated to professionalism (Table 1).<sup>13</sup> The ACGME updated its professionalism common program requirements (VI.B) in March 2017 (Table 2) and is in the process of formulating new milestones.<sup>3</sup> The proposed professionalism milestones include:

- professional behavior and ethical principles,
- accountability/conscientiousness, and
- self-awareness and help-seeking.<sup>14</sup>

Professional (physician) burnout and well-being are addressed in the self-awareness and help-seeking milestone and in the revised ACGME common program requirement VI.C.<sup>3</sup> (Table 3)

Medical education proceeds through a continuum from undergraduate (UME, medical school) to graduate (GME, internship/residency/fellowship) education by which the novice student requiring supervision develops into a physician able to practice medicine without supervision. A well-defined curriculum is an accreditation standard in all UME and GME programs (*formal curriculum*). The formal curriculum represents the content (knowledge, skills, and attitudes) presented in lecture, small group, and clinical experiences with well-defined objectives linked to the institution’s objectives. By contrast, the behaviors and role modeling encountered during clinical rotations represent the so-called *hidden curriculum*. As its name

implies, the hidden curriculum is not formally taught. It is the more invisible, day-to-day experiences and interactions where learners emulate the behaviors they see. These learned behaviors can be positive or negative, so it is imperative that physicians and educators also model the professional behaviors they are trying to teach. Professionalism development is often a component of the formal curriculum but is always a component of the hidden curriculum. Student attitudes regarding professionalism develop in part from the formal curriculum but more important as part of the hidden curriculum, where students observe the interactions between faculty, staff, administrators, patients, and their peers.<sup>15-17</sup>

Trainees entering GME have already started development of their professionalism based on experiences prior to residency including their UME experience.<sup>18</sup> The critical question is what modality or combination of modalities is most effective in continuing the development of professionalism in trainees. Role modeling by faculty is undoubtedly critical. Faculty responsible for development of trainees’ professionalism are aware that more is needed than just faculty role modeling in the health-care environment. Kirch and colleagues comment that “professionalism must be taught early, longitudinally, and deliberately using both targeted instruction and experiential learning.”<sup>19</sup> (p. 1798) This article outlines a vehicle that can be used by programs to address professionalism in trainees.

## A Case-Based Educational Approach

As one of its mandates, the College of American Pathologists’ (CAP) Graduate Medical Education Committee (GMEC) has addressed the issue of professionalism in pathology GME in prior publications.<sup>20,21</sup> In Domen et al, we surveyed program directors (PDs) on how they would respond to lapses in professional behavior as depicted in case vignettes.<sup>20</sup> This publication was followed by Brissette et al,<sup>21</sup> where PDs and residents rated the professionalism of various behaviors.<sup>21</sup> In that survey, PDs and residents consistently identified 6 behaviors ranked from highest to lowest as being unprofessional (Table 4). In addition to the above mentioned behaviors, residents in contrast to program directors commonly rated the following behavior as unprofessional: did not promptly respond to pager or on-call responsibilities (including timely hand-offs).<sup>21</sup>

Brissette et al also surveyed residents on their participation in unprofessional behavior and observation of faculty participation in various behaviors. Program directors also reported

**Table 1.** Pathology Professionalism Milestones.<sup>13</sup>


---

PROF1: Licensing, certification, examinations, credentialing:  
Demonstrates attitudes and practices that ensures timely completion of required examinations and licensure (AP/CP)

PROF2: Professionalism: Demonstrates honesty, integrity, and ethical behavior (AP/CP)

PROF3: Professionalism: Demonstrates responsibility and follow-through on tasks (AP/CP)

PROF4: Professionalism: Gives and receives feedback (AP/CP)

PROF5: Professionalism: Demonstrates responsiveness to each patient's unique characteristics and needs (AP/CP)

PROF6: Professionalism: Demonstrates personal responsibility to maintain emotional, physical, and mental health (AP/CP)

---

Abbreviation: AP/CP, Anatomic and Clinical Pathology.

**Table 2.** ACGME Common Program Requirements for Professionalism (VI.B.)<sup>3</sup>


---

Programs, in partnership with their Sponsoring Institutions, must educate residents and faculty members concerning the professional responsibilities of physicians, including their obligation to be appropriately rested and fit to provide the care required by their patients.

The learning objectives of the program must:

- be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events;
- be accomplished without excessive reliance on residents to fulfill nonphysician obligations; and,
- ensure manageable patient care responsibilities.

The program director, in partnership with the Sponsoring Institution, must provide a culture of professionalism that supports patient safety and personal responsibility.

Residents and faculty members must demonstrate an understanding of their personal role in the:

- provision of patient- and family-centered care;
- safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and adverse events;
- assurance of their fitness for work, including:
  - management of their time before, during, and after clinical assignments; and,
  - recognition of impairment, including from illness, fatigue, and substance use, in themselves, their peers, and other members of the health care team.

- commitment to lifelong learning;
- monitoring of their patient care performance improvement indicators; and,
- accurate reporting of clinical and educational work hours, patient outcomes, and clinical experience data.

All residents and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. This includes the recognition that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.

Programs must provide a professional, respectful, and civil environment that is free from mistreatment, abuse, or coercion of students, residents, faculty, and staff. Programs, in partnership with their Sponsoring Institutions, should have a process for education of residents and faculty regarding unprofessional behavior and a confidential process for reporting, investigating, and addressing such concerns.

---

Abbreviation: ACGME, Accreditation Council on Graduate Medical Education.

**Table 3.** ACGME Common Program Requirements for Well-Being (VI.C.)<sup>3</sup>


---

[Well-Being must include:]

- efforts to enhance the meaning that each resident finds in the experience of being a physician, including protecting time with patients, minimizing nonphysician obligations, providing administrative support, promoting progressive autonomy and flexibility, and enhancing professional relationships;
- attention to scheduling, work intensity, and work compression that impacts resident well-being;
- evaluating workplace safety data and addressing the safety of residents and faculty members;
- policies and programs that encourage optimal resident and faculty member well-being; and,

Residents must be given the opportunity to attend medical, mental health, and dental care appointments, including those scheduled during their working hours.

[Well-being must include:]

- attention to resident and faculty member burnout, depression, and substance abuse. The program, in partnership with its sponsoring institution, must educate faculty members and residents in identification of the symptoms of burnout, depression, and substance abuse, including means to assist those who experience these conditions. Residents and faculty members must also be educated to recognize those symptoms in themselves and how to seek appropriate care. The program, in partnership with its Sponsoring Institution, must:

- encourage residents and faculty members to alert the program director or other designated personnel or programs when they are concerned that another resident, fellow, or faculty member may be displaying signs of burnout, depression, substance abuse, suicidal ideation, or potential for violence;
- provide access to appropriate tools for self-screening; and,
- provide access to confidential, affordable mental health assessment, counseling, and treatment, including access to urgent and emergent care 24 hours a day, 7 days a week.

There are circumstances in which residents may be unable to attend work, including but not limited to fatigue, illness, and family emergencies. Each program must have policies and procedures in place that ensure coverage of patient care in the event that a resident may be unable to perform their patient care responsibilities. These policies must be implemented without fear of negative consequences for the resident who is unable to provide the clinical work.

---

Abbreviation: ACGME, Accreditation Council on Graduate Medical Education.

their observation of resident and faculty behaviors. Residents and PDs most frequently observed the same unprofessional behaviors among faculty ranked from highest to lowest (Table 5). Program directors also observed these same behaviors among residents supporting the importance of the hidden curriculum in resident education.

Based on the cumulative experience and feedback from PDs and residents, the GMEC continues to discuss how to best incorporate professionalism development into the GME curriculum. A question that arose after reviewing the survey results from Brissette et al<sup>21</sup> is what curricular changes or tools PDs could use to promote professional behavior: What would be

**Table 4.** Behaviors Most Consistently Rated Unprofessional by Program Directors and Residents.<sup>21</sup>


---

Posted patient information and/or case images with personally identifiable information to social media
Made a disparaging comment about a physician colleague on social media
Made a disparaging comment about a member of the support staff on social media
Made a disparaging comment about a physician colleague in a public hospital space (eg, elevator, cafeteria, parking lot)
Missed work but did not report the time off to the institution (ie, did not use one's sick/vacation days or paid time off)
Made a disparaging comment about a member of the support staff in a public hospital space (eg, elevator, cafeteria, parking lot)

---

**Table 5.** Unprofessional Faculty Behaviors Most Frequently Observed by Residents and Program Directors.<sup>21</sup>


---

Complained to a colleague about workload or hospital policies/procedures
Used a mobile device for work-related purposes during a lecture or sign out
Skipped a required lecture or rounds when no truly urgent clinical issue needed attention
Arrived late to a required lecture or rounds when no truly urgent clinical issue needed attention
Used a mobile device for nonwork-related purposes during a lecture or sign out

---

beneficial as part of the formal residency curriculum to address the ambiguities encountered by residents along with the biases they develop from the hidden curriculum? Equally important was asking how best to provide house staff with strategies to deal with the ambiguities encountered to minimize lapses in professional judgment and preclude resident burnout. Given the often situational and multifactorial nature of real-world professionalism challenges, the GMEC sees many benefits to the use of case vignettes focusing on specific themes of professionalism. Case vignettes provide subject matter and a structured format to:

- identify conflicts of interest,
- teach effective communication skills,
- deliver resilience skills,
- develop a sense of self awareness and a sense of one's limitations,
- teach skills to deal with lapses in professional behavior,
- remediate lapses in professional behavior,
- develop a team approach to augmenting professional development,
- minimize professionalism lapses and ameliorate burnout,
- review key ethical issues that underlie professional behavior, and
- use as a vehicle for formative assessment.

### Creation of Case Vignettes

Themes drawn from elements of unprofessional behavior referenced in our prior publications and from the literature were condensed into 3 domains (service, research, and education) and serve as the basis for case vignettes. The service domain, known also as the competency domain, consists of both the academic requirements and the clinical responsibilities of residency. Within this domain, residents interact with students, peers, faculty, and other health-care professionals including clinical laboratory scientists, histotechnologists, and pathologists' assistants. The research domain deals with residents performing research with institutional requirements and federal regulations governing human and animal research. The education domain refers to residents delivering content based on curricular objectives to medical students, residents in other specialties, and other laboratory professionals including medical technologists. In this domain, a student-instructor relationship is implied.

Within each domain, the GMEC further clustered the professionalism scenarios into 4 areas: duty, integrity, respect, and resilience. Topics for the cases authored to date are included in Tables 6, 7, and 8. For each theme, cases (Table 9) were developed that could be utilized by PDs and department faculty to engage residents in a dialogue on what is appropriate professional behavior. A set of standard questions that apply to each case vignette were developed (Table 10) as were specific questions for each case (Table 9). The consensus among GMEC members suggested there was not a single correct answer but rather discussion points that need to be raised. The points include the PD's obligations, local institutional constraints, and accreditation requirements. A subset of the cases were piloted by GMEC members at the Association of Pathology Chairs' Program Directors Section annual meeting, CAP residency forums, and to house staff supervised by committee members to assess relevance and credibility.<sup>20</sup> Several were also presented at professionalism sessions at the CAP annual meeting. Themes identified as problem areas in the study by Brissette et al compose the majority of cases the GMEC authored.<sup>21</sup>

The selected GMEC case vignettes in Table 9 from the service, research, and education domains outline common scenarios encountered in pathology GME. The key issue addressed by each case is underlined. As outlined in Tables 9 and 10, the GMEC modeled the use of these scenarios in professionalism development through key questions and discussion of the underlying professional, ethical, and legal considerations. In building these case discussion, for example, the GMEC considered feedback from residents and PDs at different levels of experience and accreditation and legal standards. Resident well-being and skills to enhance resilience were also incorporated as a goal.

Case 1 deals with substance abuse while on duty. Although the outcome in case 1 is fixed,<sup>20</sup> given that many states have mandatory reporting requirements for substance abuse and PDs are required to request a "fitness for duty" evaluation, there is value in discussing the legal ramifications.

There is also value in discussing the responsibility of peers in reporting the problem and whether their intervention could

**Table 6.** Professionalism Themes and Topics Within the Service (Competency) Domain.

Themes	Topics	Examples
Duty	Maintain academic standards	Addresses poor attendance (no attendance) at required conferences, failure of in-service examinations or USMLE, Step 3, compliance with rotation objectives and time management
	Physician impairment	Includes drugs and alcohol abuse, as well as medical illness and burnout
	Know limitations	Includes declining skills and lack of or improper training
Respect	Dereliction of duty	Self-explanatory
	Patients	Includes privacy issues (proper use of PHI, informed consent, social media, and interpersonal relationships)
	Peers	Addresses interpersonal relationships (harassment, diversity, intimidation, control, romantic, anger management), assisting junior residents and social media issues
	Attendings/Staff	Addresses interpersonal relationships (romantic), abusive behavior, and lack of recognition
	Institution	Deals with proper use of social media, fiscal responsibility, theft and compliance with institutional policies
Integrity	Conflicts of interest	Self-explanatory
	Proper disclosure	Includes mandatory reporting
	Maintain confidentiality	Self-explanatory
	Dishonesty	Self-explanatory
	Falsification of records	Includes applications and mandatory reporting requirements
Resilience	Burnout	Self-explanatory

Abbreviations: PHI, Protected Health information; USMLE, United States Medical Licensing Exam.

have prevented the case outcome. For example, did the attending pathologist and residents who suspected potential substance abuse have a responsibility to notify the PD or should the PD have been more aware? If peers overlooked the problem and later in the resident’s career, there was a poor patient outcome as a result of a known substance abuse problem, would they feel responsible?<sup>22</sup> Is there a team approach that could be utilized to remediate the resident? This case further allows PDs to address AMA Principles of Medical Ethics, sections 9.3.1 Physician Health and Wellness and 9.3.2 Physician Responsibilities to Impaired Colleagues.<sup>23,24</sup>

Case 2 deals with unauthorized access to medical records. The case also raises the possibility of litigation and could be used to educate residents on the role of the institutional and hospital risk management offices and the elements of a negligence lawsuit.<sup>25</sup> This case further allows PDs to address

**Table 7.** Professionalism Themes and Topics Within the Research Domain.

Themes	Topics	Examples
Duty	Proper design of experiment with statistical analysis	Deals with maximizing research benefits and minimizing patient risk
	Know limitations	Includes lack of proper training in design, methodology, and interpretation.
Respect	Dereliction of duty	Self-explanatory
	Subjects (Patients)	Deals with maintaining privacy of PHI data, patient autonomy (informed consent), proper use of social media, and interpersonal relationships
	Peers, students, staff	Deals with interpersonal relationships and inadequate recognition of students and staff
Integrity	Institution	Deals with proper use of social media, fiscal responsibility (money and time), theft (fraud), and compliance with federal and institutional research requirements (IRB approval)
	Conflicts of interest	Includes sharing research findings and authorship
	Proper disclosure	Includes mandatory reporting
	Maintain confidentiality	Self-explanatory
Resilience	Dishonesty	Self-explanatory
	Falsification of records	Includes required reporting
Resilience	Burnout	Deals with not being funded and loss of laboratory and reassignment to new role

Abbreviations: IRB, institutional review board; PHI, Protected Health Information.

postmortem information (autopsy findings) and AMA Principles of Medical Ethics, section 3.2.2, Confidentiality, Postmortem.<sup>26</sup>

Case 3 also deals with access to medical records. In contrast to a lapse in professional judgment, it demonstrates positive behavior. Comparing positive and negative behavior is important for professional development, and the 2 cases could be discussed in tandem. Residents should be encouraged to discuss the skill sets and actions that allowed for a good outcome.

Case 4 deals with posting patient information to social media. Proper use and improper use are discussed along with the institution’s policy and ramification to the individual and institution for improper use. The autopsy authorization form can also be discussed and accepted norms for using clinical material for educational purposes.

Case 5 deals with abusive behavior in the workplace. Ramifications of this behavior on patient care and workload are discussed. The case also allows for a discussion on what should be the department’s response if such an individual applies for a faculty or private practice position. What should be disclosed in

**Table 8.** Professionalism Themes and Topics Within the Education Domain.

Themes	Topics	Examples
Duty	Maintain academic standards	Incorporates designing course/ clerkship that meets institutional goals, designing appropriate assessments and complying with goals and objectives of course/ clerkship
	Education of peers and students	Includes outlining goals and objectives for faculty and students
	Instructor impairment	Includes impairment due to drugs, alcohol, and illness
	Know limitations	Includes declining skills and not properly trained
	Dereliction of duty	Self-explanatory
Respect	Students	Includes privacy of student information (FERPA), providing constructive assessments, proper use of social media, interpersonal relationships including abusive behavior, and lack of student recognition
	Staff	Addresses interpersonal relationships, abusive behavior, and inadequate recognition
	Institution	Addresses proper use of social media, fiscal responsibility (money and time), theft (fraud) and compliance with educational institution policies
Integrity	Conflicts of interest	Self-explanatory
	Proper disclosure	Deals with mandatory reporting (LCME and ACGME)
	Maintain confidentiality	Deals with grading, recommendations
	Dishonesty	Self-explanatory
	Falsification of records	Deals with required reporting
Resilience	Burnout	Self-explanatory

Abbreviations: ACGME, Accreditation Council on Graduate Medical Education; FERPA, Family Educational Rights and Privacy Act; LCME, Liaison Committee on Medical Education.

a recommendation letter? Are there legal repercussions to such disclosure?

Case 6 is in the research domain. Institutional policies and federal regulations can be discussed. The case also serves as a vehicle for addressing the Belmont report findings, respect for persons, beneficence, and justice. The concepts of informed consent, risk, and benefit assessment and selection of research participants are also part of the dialogue.<sup>27,28</sup>

In the education domain, case 7 deals with sexual harassment. The case allows for discussion of the institution's policy and AMA Principles of Medical Ethics section 9.1.3, Sexual Harassment in the Practice of Medicine and ACGME professionalism standards.<sup>29,30</sup>

Cases 8 and 9 focus on time management, physician burnout, and resilience. It is important that training programs address these issues. Resident burnout has a number of associated elements, including "emotional exhaustion", "depersonalization and cynicism," and "feelings of inefficacy".<sup>8</sup> Emotional exhaustion and/or depersonalization were identified in 76% of US medical residents on the Maslach Burnout Inventory.<sup>8</sup> Patient care errors have been associated with burnout. Residents should be aware of the signs of burnout and how to access appropriate interventions. Many of the cases raise these questions and provide a forum for a dialogue on the issue. The cases also allow for a discussion of AMA Principles of Medical Ethics, section 9.2.2, Resident and Fellow Physicians' Involvement in Patient Care.<sup>31</sup>

Case 10 deals with a resident with significant debt that lacks the skill on how to budget salary. Absent financial management skills may lead to excessive anxiety and burnout.<sup>32,33</sup>

## Discussion

"Professionalism" is a character trait medical students develop which manifests as behavioral change over the course of training.<sup>18</sup> Students entering medical school tend to have a positive altruistic view and a sincere desire to help patients. They expect to be treated with "respect, honesty, and tolerance."<sup>18</sup> Throughout UME, their view changes as they witness behaviors, positive and negative, in the health-care arena as part of the hidden curriculum.<sup>34-36</sup> Market forces and societal pressures (eg, television programs such as *Grey's Anatomy*, *House, M.D.* and *Scrubs*) also influence their behavior.<sup>17</sup> Medical students experience a disconnect between the formal curriculum and the personal interactions they witness leading to cynicism, loss of empathy and potentially burnout. As a learned behavior, professional behavior can be modified through positive experiences.

Students entering GME have already started their development of professionalism. The critical question is what methods or combination of methods can be deployed to continue the development of professionalism in residents. Residents observe behavior among clinicians, their peers and attendings, and other health-care workers while influencing medical students and other health-care personnel. The hidden curriculum is constantly at work. Recent literature indicates that modifying behavior is the best way to promote professionalism. Identifying positive behaviors while minimizing negative role models is important.<sup>17</sup>

The medical education literature deals with different modalities to deliver content, such as lectures and case-based instruction. Lectures tend to be passive and designed to cover a specific theme. Although cases may be incorporated into lectures, small groups with active discussion have a positive effect on learning. Small group teaching with well-defined goals and objectives, a proper attitude of the instructor, and development of rapport with the participants can be highly effective for teaching professionalism.<sup>37</sup> Most pathology

**Table 9.** Selected Cases From the Service (Competency), Education, and Research Domains and on Burnout and Resilience.

Case		Specific Questions to be Addressed
<b>Service/Competency Domain</b>		
Case 1. Resident with substance abuse problem compromising performance.	Dr F is a PGY2 pathology resident who is seeing you first thing on a Thursday morning for his semiannual evaluation. He has been noted to have difficulties during his most recent surgical pathology rotations, despite having done extremely well in his first year. Several attendings have informally commented that he seemed inattentive and “bleary eyed” during sign out and that he was missing important details in his gross descriptions. He recently cut himself in the frozen section laboratory during a frozen performed at night while on call. A few days ago, while walking through the resident’s room, you overheard one resident ask how his weekend was to which he replied, “Man, I got so wasted I barely made it into work today. I’ve got a wicked headache this morning.” His evaluations for other rotations have been satisfactory, but there has been a noticeable drop-off in performance across the board since the previous year. When he shows up for your meeting, he is 10 minutes late and looks disheveled. He states that his alarm clock didn’t go off and he had to roll out of bed to hurry into the hospital to meet with you. After beginning to go over his evaluations, he gets defensive and angry, blaming the attendings and other residents for making him look bad. When he leans over to point out something in his file, you detect alcohol on his breath.	<p>What is a fitness for duty statement?</p> <p>What are its consequences?</p> <p>What are the mandatory state reporting requirements for substance abuse?</p> <p>What is reported by the institution on job and fellowship applications?</p>
Case 2. Unauthorized access to EHR by resident	Dr S is a PGY-3 resident who has had positive evaluations throughout his residency. His spouse informs him that she heard from a neighbor that a mutual friend was diagnosed at his institution with metastatic malignant melanoma and asks him if he could verify the information. The next day Dr S searches the pathology database for the mutual friend’s pathology report to verify the diagnosis and passes the information on to his spouse who subsequently discusses it with their neighbor. You (the program director) are contacted by the Risk Management Office stating that the mutual friend contacted the health-care facility complaining that her confidential medical information had been disclosed by Dr S.	<p>What constitutes unauthorized access to the EHR?</p> <p>What is considered a HIPAA (Health Insurance Portability and Accountability Act of 1996) violation?</p> <p>What are the institutional guidelines related to EHRs?</p> <p>What are the consequences for the individual and the institution for unauthorized access?</p> <p>Is it a misdemeanor?</p> <p>Are ethical, institutional, or legal considerations different for postmortem data?</p>
Case 3. Positive action by resident for requested unauthorized EHR information	Dr. R is a PGY-2 resident. His wife wanted to know the laboratory results of a pregnancy test for their neighbor. Dr R tells his wife that he would want his medical information to be confidential and she would not want the results of her recent skin biopsy disclosed. Further he adds it would be a HIPAA violation and a possible misdemeanor and would put the hospital at risk. His wife accepted his response.	
Case 4. Posting patient information by resident and medical student to social media	Ms. D is a fourth-year medical student on an elective pathology rotation and is planning a career in pathology. Dr E is a PGY-3 resident on her third straight month of autopsy rotation and is supervising Ms. D on an autopsy on a 4-month old baby who died as a result of multiple congenital abnormalities. Before the autopsy they are both joking around and they both take multiple pictures of the baby with their cell phones and later post them on Facebook along with derogatory and insensitive comments about the baby, attendings in the hospital, and the department. Several other residents see the photos and also post comments.	<p>How does HIPAA apply to postmortem data?</p> <p>What content is appropriate for educational use?</p> <p>Does it need to be deidentified?</p> <p>What is the institution’s policy on social media?</p> <p>What are the repercussions for posting unauthorized material?</p> <p>Is the individual legally liable for posting the images?</p> <p>What is the institution’s liability?</p>

(continued)

Table 9. (continued)

Case		Specific Questions to be Addressed
Case 5. Abusive behavior by resident to peers regarding sexual orientation and IMG status	Dr. H is a PGY-6 Surgical Pathology Fellow. She is well-respected for her diagnostic skills, although she has a reputation for being “demanding” or perhaps “difficult” as an educator. During review of cases with residents and students she has been known to speak sharply when a resident misidentifies the tissue or takes too long to write up the day’s cases. Within a couple of months of the start of the new academic year, the pathology program director however begins to hear disturbing stories from both the residents and the faculty. Of late Dr. H has directed much of her vitriol and criticism toward Dr J and Dr M. Dr J a PGY-I international medical graduate (IMG) is openly gay. Dr M, a PGY-3 USMG, however, has only come out of the closet after Dr J’s arrival in the program. One of the residents also reported that she overheard Dr. H’s loud phone conversation berating international medical graduates (IMG’s) as inferior to US-trained physicians in both skills and values and that this residency program had too many IMG’s. She has been overheard at lunch with her colleagues talking about the need to restore dignity to the profession and being careful about all these quote “non-traditional” trainees being accepted into the program.	<p>How can residents recognize their own and others’ bias toward different groups?</p> <p>What skills, structural factors, and institutional resources and policies can help maintain group cohesion and optimal patient care in a diverse group given differing experiences and expectations and unconscious bias?</p> <p>What are the responsibilities of faculty, PD and residents in dealing with reporting abusive behavior?</p> <p>What are Title 7 requirements? Title 9?</p> <p>What is the institution’s policy on discrimination?</p>
Research Domain		
Case 6. Failure by resident to comply with university’s research policies regarding IRB approval	A PGY3 resident approaches a faculty member, Dr R, about a research project proposal. The faculty member agrees, and the resident begins to develop and write an IRB protocol and develop a budget for the project. The resident is anxious to begin the project because of meeting abstract submission deadlines and submits the proposal for IRB approval. However, the faculty member fails to follow through on the required approvals, and the process of IRB languishes. The resident, however, begins to select and review cases and request the necessary stains as proposed. The faculty member is contacted by the resident, and the cases and necessary stains are reviewed. The resident then writes an abstract for submission to the scientific meeting and she submits it for faculty approval. After submission of the abstract, the resident is informed that an IRB protocol # is required for acceptance and finds that the faculty member never completed the IRB approval process.	<p>What is the role of an IRB?</p> <p>What regulations govern informed consent?</p> <p>What are the institutional and federal regulations for research and consequences of failing to comply with them?</p> <p>Can data collected in a non-IRB approved protocol be used?</p>
Education Domain		
Case 7. Sexual harassment by resident toward medical student	Although they were on call together, Dr. G, a PGY 2 resident, asked a medical student if she wanted a backrub. Although Dr. G apologized, the student filed a complaint with her supervisor. Dr. G was counseled by the PD stating there are professional boundaries that must be respected and gave him a copy of the institution’s sexual harassment policy. During his PGY 3 year, another female medical student filed a complaint against Dr G feeling that after initial conversations the conversations took on a sexual connotation. The student filed a complaint of having felt threatened and vulnerable with the Dean for Student Affairs. The PD counselled Dr G. During the session, it was found that Dr G had a history of repeated inappropriate overtures toward students. Dr. G was put on probation and informed that any future inappropriate behavior toward students or hospital personnel would be grounds for dismissal. Counselling was also recommended. Although his clinical performance was positive, another complaint was filed by a hospital employee for inappropriate comments in violation of the hospital’s sexual harassment policy. At no time was Dr G in a supervisory role with the students or found to be inappropriate with patients.	<p>What is the institution’s policy on sexual harassment?</p> <p>Is it appropriate for residents to have romantic relationships with patients, with faculty, with students or their own resident colleagues?</p> <p>Does the appropriateness of the relationship differ if one party supervises or is involved in evaluating others?</p>

(continued)



**Table 9.** (continued)

Case		Specific Questions to be Addressed
<b>Burnout/Resilience</b>		
Case 8. Resident with signs of burnout	Dr S is a PGY 2 resident. She has been a solid resident starting work at 6 AM and leaving after 6 PM. Her peers note she spends her evenings studying pathology and she comes in on weekends to review unknowns and work on projects. She has limited social interaction and no outside interests. Within the last month, laboratory personnel have commented she has become indifferent in contrast to when she first started the program. Faculty comments suggest she is cutting corners during grossing specimens and not taking the required sections. You also have just received a patient complaint from her last transfusion medicine rotation.	What are the signs of physician burnout? What strategies can be employed to prevent burnout? What specific resources are available at your institution for residents with signs of burnout?
Case 9. Resident treated for burnout with improvement of performance	Dr P is a PGY 3 resident. Her performance had been solid. During her last performance review, however, she was noted to have signs of depersonalization (callous attitude toward patients and laboratory personnel accompanied by a cynical attitude). Therapy was recommended. As part of her therapeutic plan she developed outside interests with improvement in her attitude and performance. Recently, it was determined that prior to her last performance appraisal she had mislabeled specimens without informing anyone after she discovered the error; this led to a patient being misdiagnosed with cancer.	
Case 10. Resident in Financial Trouble	Dr S. is a new PGY1. She and her husband graduated from medical school with significant tuition debt from both undergraduate and medical school. Prior to starting internship they purchased a new car and a condominium. They also found child care expenses manageable but more than they expected. Several months into her residency she started receiving phone calls from a collection agency. Although they generated a budget, they had not accounted for taxes and the high cost of living. The repeated phone calls led to significant anxiety and suboptimal performance in her clinical responsibilities. She came to see the program director for assistance when their car was repossessed.	How much debt do you have? Do you have the income to meet your debt? Do you know how to generate and live within a budget? Are you aware of resources to assist you with debt management?

Abbreviations: EHR, Electronic Health Record; HIPAA, Health Insurance Portability and Accountability Act; PD, program directors.

**Table 10.** General Discussion Points for All Cases.

- Was the resident's behavior unprofessional, professional or neither?
- What behavior in the case bothers you?
- Is there a breach of trust in the profession? Is there a potential for patient injury?
- How should the program director act? What if this was your coresident? What if it was you?
- Is there anything that could have been done to prevent it?
- Were there warning signs? Should they have been brought to the attention of the PD?
- What role do residents have in policing their peers?
- What are your institutional resources and policies?
- What are your State statutes and regulations regarding the issue?
- What are federal statutes and regulations?
- What message does this send to other residents?

residencies vary in size from 8 to 24 trainees, making small group faculty or senior resident-facilitated teaching ideal.

Case vignettes allow for self-reflection, assessment of peers, attendings, staff and patients, and allow residents to develop strategies and tools to deal with ambiguity and lapses in judgement.<sup>38-41</sup> Another benefit of this approach for PDs is to gain an

appreciation of the resident's perspectives (attitude, social norms, and cultural background). Program directors can take the opportunity to refresh their own knowledge of the program/ institutional background based on experience, regulatory, and legal standards and the consequences of the behavior in preparation for the discussion. Where appropriate, strategies can be incorporated into the discussion to modify behavior, promote resilience, and insure that trainees are familiar with institutional policies. Much of the professionalism curriculum in institutions focuses on lapses in judgment; we have furthered developed cases that highlight constructive responses highlighting the elements of professionalism. Another goal for utilizing case vignettes is to counter the hidden curriculum. Case vignettes can be instrumental in aligning the formal curriculum on professionalism with the hidden curriculum encountered in everyday practice. Our cases serve as a tool for program directors to make trainees aware of the hidden curriculum and develop strategies to overcome the negative biases they have encountered and promote positive behavior in their professional development.<sup>21,42,43</sup>

The use of case vignettes with residents across medical specialties has demonstrated value in resident professional

development.<sup>38,39</sup> Factors to consider in their use include personal attributes and characteristics including perceived identity, unconscious bias and inherent personality traits, interpersonal and interprofessional relationships including functioning in a group (group dynamics), and societal dimensions such as the political and economic framework within and external to the institution.<sup>38</sup> Case vignettes that are realistic and current address these factors. Reflection on case content is part of the experiential process as previously outlined.<sup>19,41</sup>

Depending on institutional resources and the program's curriculum, case vignettes can be employed flexibly to create a meaningful experience and promote professional development. The simplest format is a group discussion led by the PD where residents review the case as a group and answer selected questions. The PD or other facilitator would then give their perspective, followed by a group discussion. Alternatively, residents could be given the cases ahead of time and asked to write answers to the specific questions, reflect on their answers prior to the session and then modify their answers if needed post session. As part of the exercise, PDs should alert trainees to the potential of unconscious bias. Another alternative is to have residents role-play the individuals in the case vignette or to use professional actors to role play in front of a camera. Residents could review the videotapes separately or as a group prior to the discussion. Videotaping allows residents performing away rotations to participate and ensure for accreditation purposes that each resident is exposed to the same curriculum. In many of these scenarios, it is worthwhile to retain the residents' comments and use the same cases year to year, with residents reflecting on their personal answers over all 4 years of the program to assess the change in their professional development. Based on our prior experience, it is worth seeing how residents would treat the resident who is unprofessional in each of the cases.<sup>20</sup> In several instances, residents felt the problem resident should be dismissed or their contract not renewed versus the PDs who advocated counseling; with repeated exposure to the scenario, residents could observe the evolution in their thinking and approach.

Assessment of resident behavior can be formative, summative, or diagnostic.<sup>44</sup> Norcini and McKinley outline 2 advantages of formative assessment. First, it provides feedback to residents and PDs to guide learning (professional development) and second, the act of assessment itself creates a learning environment.<sup>44</sup> As discussed earlier, residents should be able to perform a number of tasks by the end of training as outlined in the ACGME professionalism core competency.<sup>11</sup> Case vignettes have a role in formative assessment. Their role in summative assessment is open to debate.<sup>45</sup> Residents can be given the cases and generate a response to the general and specific questions for the cases. Although the GMEC position is that there is no single correct answer to many of the cases, there is consensus opinion and applicable guidelines or law for many of the broader issues that could be provided to the residents as formative feedback, for example, AMA Principles of Medical Ethics for service (competency) domain, and the Belmont

Report for research domain. All cases allow for self-reflection, which is critical in professional development.<sup>44</sup>

Within the medical and pathology academic communities, professionalism is identified as one of the most important ethical issues.<sup>46,47</sup> Employers rate areas of professionalism, including honesty, interpersonal interactions, knowing ones limitations, and knowing when to ask for help, as critical attributes in hiring recent trainees.<sup>21,48,49</sup> Our experience is that professional development must provide residents with the knowledge, skills, attitudes, and strategies to minimize lapses in judgment and provide them resilience skills to prevent burn-out that may lead to compromised patient care.<sup>8,10,50,51</sup> Although there is no substitute for real-world experience, we designed our case vignettes to realistically reflect current issues encountered in GME. Through these simulated cases, residents can role-play and practice positive behaviors while being coached and provided strategies to deal with conflict.

Role-modeling by faculty is undoubtedly also an important modality in professional development.<sup>18,21,46</sup> Wagoner observed that when second-year students were asked what they considered as unprofessional behavior among faculty, the comments included 2 themes: dehumanization of students, colleagues, patients, and others by showing lack of respect, breach of confidentiality, displays of intolerance, or dishonesty and insensitivities based on gender, ethnicity, or cultural beliefs, particularly involving racist or sexist remarks.<sup>18</sup> As discussed earlier, pathology residents have identified specific faculty behaviors as unprofessional.<sup>21</sup>

Residents need positive role models; they need to witness positive behavior in faculty to emulate. Negative behavior in role models is counterproductive. Faculty development has a role in developing positive role models and modifying behavior for residents and other laboratory personnel. The GMEC case vignettes can be utilized by institutions for faculty development and promoting faculty well-being as well.

## Conclusion

Residents are diverse in their experiences and expectations, and their development of professionalism is based on multiple factors including "experiential learning."<sup>19</sup> We have found case vignettes a useful vehicle to reinforce model behavior and counter the *hidden curriculum* that is part of the GME experience. Active participation using real-world experiences can be used for deliberate targeted instruction in a longitudinal manner starting during the first month of GME.

## Authors' Note

For Dr Brissette: The views and opinions expressed in this manuscript are those of the author and do not reflect the official policy or position of the Department of Army/Navy/Air Force, Department of Defense or the United States Government.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## ORCID iD

Dita A. Gratzinger, MD, PhD  <http://orcid.org/0000-0002-9182-8123>

## References

- American Board of Internal Medicine. *Project professionalism*. Philadelphia, PA: American Board of Internal Medicine; 1995.
- Accreditation Council on Graduate Medical Education. ACGME institutional requirements. III.B.6. Professionalism. 2013. [http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/InstitutionalRequirements\\_07012015.pdf?ver=2015-11-06-120641-887](http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/InstitutionalRequirements_07012015.pdf?ver=2015-11-06-120641-887). Accessed March 3, 2017.
- ACGME Common Program Requirements. Section VI with background and intent. 2017. [http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs\\_Section%20VI\\_with-Background-and-Intent\\_2017-01.pdf](http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRs_Section%20VI_with-Background-and-Intent_2017-01.pdf). Accessed November 15, 2017.
- Liaison Committee on Medical Education. Functions and structure of a medical school. Standards for accreditation of medical education programs leading to the MD degree. Standard 3.5. 2017. <http://lcme.org/publications/> Accessed November 3, 2017.
- Papadakis MA, Teherani A, Banach MA, et al. Disciplinary action by medical boards and prior medical behavior in medical schools. *N Engl J Med*. 2005;353:2673-2682.
- Reamy BV, Harman JH. Residents in trouble: an in-depth assessment of the 25-year experience of a single family medicine residency. *Fam Med*. 2006;38:252-257.
- Domen RE. Resident remediation, probation and dismissal: basic considerations for program directors. *Am J Clin Pathol*. 2014;141:784-790.
- Thomas NK. Resident burnout. *JAMA*. 2004;292:2880-2889.
- Baker K, Sen S. Healing medicine's future: prioritizing physician trainee mental health. *AMA J Ethics*. 2016;18:604-613.
- Kasten J. Resident burnout: not just for the "long hours" specialties. *Acad Med*. 2017;92:904-905.
- Accreditation Council on Graduate Medical Education. Program director guide to the common program requirements. 2012. [http://www.acgme.org/Portals/0/PDFs/commonguide/CompleteGuide\\_v2%20.pdf](http://www.acgme.org/Portals/0/PDFs/commonguide/CompleteGuide_v2%20.pdf). Accessed July 1, 2017.
- American Board of Medical Specialties. "Based on core competencies" <http://www.abms.org/board-certification/a-trusted-credential/based-on-core-competencies/> Accessed July 1, 2017.
- Accreditation Council on Graduate Medical Education. The pathology milestone project a joint initiative of The accreditation council for graduate medical education and The American Board of Pathology. <http://www.acgme.org/Portals/0/PDFs/Milestones/PathologyMilestones.pdf>. Accessed July 1, 2017.
- Hamstra SJ, Edgar L, Yamazaki K, et al. ACGME. Milestones Annual Report 2017. <http://www.acgme.org/Portals/0/PDFs/Milestones/MilestonesAnnualReport2017.pdf?ver=2017-10-26-092443-267>.
- Hafferty FW, Gaufberg E. The hidden curriculum. In: Dent JA, Harden RM, eds. *A Practical Guide for Medical Teachers*. London, United Kingdom: Churchill Livingstone; 2013:52-60.
- Hafferty FW. In search of a lost cord. Professionalism and medical education's hidden curriculum. In: Wear D, Bickel J, eds. *Educating for Professionalism. Creating a Culture of Humanism in Medical Education*. Iowa City: University of Iowa Press; 2000:11-34.
- Kirk LM. Professionalism in medicine: definitions and considerations for teaching. *Proc (Bayl Univ Med Cent)*. 2007;20:13-16.
- Wagoner NE. From identity purgatory to professionalism. In: Wear D, Bickel J. *Educating for Professionalism. Creating a Culture of Humanism in Medical Education*. Iowa City: University of Iowa Press; 2000:120-133.
- Kirch DG, Gusic ME, Ast C. Undergraduate medical education and the foundation of physician professionalism. *JAMA*. 2015;313:1797-1800.
- Domen RE, Johnson K, Conran RM, et al. Professionalism in pathology: a case-based approach as a potential educational tool. *Arch Pathol Lab Med*. 2017;141:215-219. doi:10.5858/arpa.2016-0217-CP.
- Brisette MD, Johnson K, Raciti PM, et al. Perceptions of unprofessional attitudes and behaviors: implications for faculty role modeling and teaching professionalism during pathology residency. *Arch Pathol Lab Med*. 2017;141:1394-1401. doi:10.5858/arpa.2016-0477-CP.
- Kadlec Medical Ctr v. Lakeview Anesthesia Assocs, 527 F.3d 412, 2008 U.S. App. LEXIS 10267 (5th Cir. La. May 8, 2008).
- AMA Principles of Medical Ethics. 9.3.1 Physician Health & Wellness. 2017. [www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf](http://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf). Accessed June 7, 2017.
- AMA Principles of Medical Ethics. 9.3.2 Physician Responsibilities to Impaired Colleagues. 2017. [www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf](http://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf). Accessed June 7, 2017.
- Pacosa v. Kaiser Foundation Health Plan of the Northwest, No. 09-CV-1137-BR. United States District Court, D. Oregon, Portland Division January 20, 2011.
- AMA Principles of Medical Ethics. 3.2.2 Confidentiality post mortem. 2017. <https://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-3.pdf>. Accessed June 7, 2017.
- U.S. Department of Health & Human Services. The Belmont REPORT. Ethical Principles and Guidelines for the Protection of Human Subjects of Research. 2016. The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. 2016. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html>. Accessed July 6, 2017.
- Code of Federal Regulations. Basic HHS policy for protection of human research subjects. 45 CFR 46. <https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html>. Accessed July 1, 2017.
- Goad SM. Court of Appeals of Virginia, Richmond (Va. Ct. App. May 20, 2003); Steven M. GOAD, M.D., v. VIRGINIA BOARD OF MEDICINE. Record No. 0016-02-2. Goad v. Virginia Board

- of Medical Examiners, No. 0016-02-2 (Va. Ct. App. May 20, 2003). 2003.
30. AMA Principles of Medical Ethics. 9.1.3 Sexual harassment in the practice of medicine. 2017. [www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf](http://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf) Accessed June 7, 2017.
  31. AMA Principles of Medical Ethics. 9.2.2 Resident & fellow physicians' involvement in patient Care. 2017. [www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf](http://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf) Accessed June 7, 2017.
  32. Mills AM, Champeaux A. Financial health for the pathology trainee: fiscal prevention, diagnosis, and targeted therapy for young physicians. *Arch Pathol Lab Med*. 2017. <https://doi.org/10.5858/arpa.2017-0360-ED>.
  33. Cull WL, Katakam SK, Starmer AJ, Gottschlich EA, Miller AA, Frintner MP. A study of pediatricians' debt repayment a decade after completing residency. *Acad Med*. 2017;92:1595-1600.
  34. Jha V, Brockbank S, Roberts T. A Framework for understanding lapses in professionalism among medical students: applying the theory of planned behavior to fitness to practice in class. *Acad Med*. 2016;91:1622-1627.
  35. Lesser CS, Lucey CR, Egner B, Braddock CH 3rd, Linas SL, Levinson W. A behavioral and systems view of professionalism. *JAMA*. 2010;304:2732-2737.
  36. Goldie J, Dowie A, Cotton Morrison J. Teaching professionalism in the early years of a medical curriculum: a qualitative study. *Med Educ*. 2007;41:610-617.
  37. Torre D, Conran RM, Durning SJ. Learning in small groups. In: Dent JA, Harden RM, Hunt D. *A Practical Guide for Medical Teachers*. Elsevier; 2017:52-57.
  38. Bernabeo EC, Holmboe ES, Ros K, Chesluk B, Ginsburg S. The utility of vignettes to stimulate reflection on professionalism: theory and practice. *Adv Health Sci Educ Theory Pract*. 2013;18:463-484.
  39. Kahn R, Lee AG, Golnik KC, Paraniham J; For the PDMERG. Residency education professionalism vignettes. *Ophthalmology*. 2013;120:874.
  40. Gronowski AM, McGill MR, Domen RE. Professionalism in residency training: a compilation of desirable behaviors and a case-based comparison between pathologists in training and practice. *Acad Pathol*. 2016;3:1-6. doi:10.1177/2374289516667509.
  41. Rudolph JW, Simon R, Rivard P, Dufresne RL, Raemer DB. Debriefing with good judgment: combining rigorous feedback with genuine inquiry. *Anesthesiology Clin*. 2007;25:361-376.
  42. Mulder H, ter Braak E, Chen HC, ten Cate O. Addressing the hidden curriculum in the clinical workplace: a practical tool for trainees and faculty. *Med Teac*. 2018:1-8. doi:10.1080/0142159X.2018.1436760.
  43. Lehmann LS, Sulmasy LS, Desai S; for the ACP Ethics. Professionalism and human rights committee. *Ann Intern Med*. 2018; 168:506-508. doi:10.7326/M17-2058.
  44. Norcini J, McKinley DW. Concepts in assessment including standard setting. In: Dent JA, Harden RM, Hunt D, eds. *A Practical Guide for Medical Teachers*. New York, NY: Elsevier; 2017: 252-259.
  45. Voo TC, Braddock CH, Chin J, Ho A. Ethics and attitudes. In: Dent JA, Harden RM, Hunt D, eds. *A Practical Guide for Medical Teachers*. New York, NY: Elsevier; 2017:195-202.
  46. O'Sullivan HM. Professionalism. In: Dent JA, Harden RM, Hunt D, eds. *A Practical Guide for Medical Teachers*. New York, NY: Elsevier; 2017:203-209.
  47. Domen RE. Ethical and professional issues in pathology: a survey of current issues and educational efforts. *Hum Pathol*. 2002;33: 779-782.
  48. Domen RE, Talbert ML, Johnson K, et al. Assessment and management of professionalism issues in pathology residency training: Results from surveys and a workshop by the graduate medical education committee of the College of American Pathologists. *Acad Pathol*. 2015;2: 1-9. doi:10.1177/2374289515592887.
  49. Post MD, Johnson K, Brisette MD, et al. Employer expectations for newly trained pathologists. Report of a survey from the graduate medical education committee of the College of American Pathologists. *Arch Pathol Lab Med*. 2017;41:193-202.
  50. Krisberg K. *Residency Programs Develop Strategies to Respond to High Burnout Rates*. AAMC News; 2017.
  51. Baker K, Sen S. Healing medicine's future: prioritizing physician trainee mental health. *AMA J Ethics*. 2016;18:604-613.