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Issues in professionalism confronting beginning medical students during a clerkship in emergency medicine

Medical literature largely supports the concept that professionalism is learned in a latent, implicit, and experiential manner [1]. This informal curriculum is defined as the interpersonal experiences between students and their teachers, residents, and patients. It is these critical interactions, not exposures to classroom didactics, that are the more formative influence on medical students first exposed to Emergency Medicine (EM) [1,2]. Medical educators need to understand how these day-to-day experiences, modeling positive and negative behaviors, shape student perceptions of the specialty and its values. Student narrative essays provide a rich source of information about such professional issues confronted during clerkships. Routinely assigned to encourage reflection and to support the educational experience of students, narrative essays are underused as a data source for curricular reform [3]. The aim of this study was to review student narratives for insight into professionalism dilemmas and the impact they might have on beginning students adapting to the clinical world.

This was a prospective observational study of first- and second-year medical students, electing to do a clinical clerkship in EM at a single university-affiliated hospital *during a four-year study period*.

Table 1
Frequency of professionalism incidents documented in student narratives ($N = 387$).

Caring and compassion	59 (15.2%)
Sensitivity (culture, age, gender, disabilities)	43 (11.1%)
Appropriate symptomatic care	42 (10.9%)
Integrity (trustworthy, honesty)	40 (10.3%)
Leadership (effectively coordinates team)	38 (9.8%)
Respect patient's dignity and privacy	36 (9.3%)
Observable patient advocacy	35 (9.0%)
Listen to patients and respect their views	22 (5.7%)
Deal with complexity and uncertainty	19 (4.9%)
Responsive to feedback (staff, patients, families, peers)	17 (4.4%)
Confidentiality	9 (2.3%)
Discusses death honestly, compassionately	6 (1.6%)
Uses humor/language appropriately	6 (1.6%)
Managing conflicts of interest	5 (1.3%)
Responsibility/accountability	4 (1.0%)
Medical error	4 (1.0%)
Personal life interferes with work	1 (0.3%)
Appropriate dress and cleanliness	1 (0.3%)
Impaired physician	0
Sexual misconduct	0
Risk-taking	0

Elective students signed up for three 4-h shifts during which they shadowed an attending or resident physician in the Emergency Department (ED). During the study period, students were asked to write short narrative descriptions of three cases that had the greatest impact on them during the elective. The faculty, residents, and students were blinded to the study objectives. Each narrative essay was deidentified and independently analyzed by three EM investigators with different clinical and academic backgrounds. Our coding system and data abstraction for professionalism was adapted from an Association of American Medical Colleges (AAMC) report on professionalism. The main outcomes were the frequency and type of professionalism issues reported by students. After coding, professionalism incidents were reviewed in order to characterize the remarkable properties of each incident, whether it was 'negative' in the sense of violating a norm or 'positive' by exemplifying it. Descriptive statistics were used to summarize the data. A blinded critical review of a random sample of 10% of the narratives was done to determine rater reliability. The interrater reliability was moderate, with a median kappa statistic of 0.67.

During the four-year study period, 292 consecutive student essays were evaluated from 103 medical students. The mean student age was 26 ± 3 years; 55% were male. Overall, 207 of the 292 reflections (70.9%) included professionalism issues. A total of 387 specific incidents were coded across 21 categories of professionalism (Table 1). The four most common categories were incidents related to caring and compassion (15.2%); sensitivity (11.1%); appropriate use of symptomatic care (10.9%); and integrity (10.3%). The majority of incidents involved clinician interaction with patients or families (59%), followed by interprofessional incidents (41%). Overall, 282 of the 387 (72.3%) incidents were depictions of exemplary instances of professionalism, 87 (22.5%) were considered normal interactions, and 18 (4.7%) were negative interactions. The negative interactions were generally related to insensitivity to patient's pain/emotional state (5), lack of caring and compassion (4), treating patients/family and staff with disrespect (3), acknowledging mistakes (2), inappropriate use of humor (2), lack of confidentiality (1) and personal/professional balance (1). While students were impressed by their observations of EM clinicians and residents, their eyes were opened to the improper treatment of acutely ill patients, be it poor pain management, discrimination, inadequate patient education, or a perceived lack of empathy.

Medical student narrative essays showed a wide variety of interesting professional interactions. Drawn from daily experience, student essays provided insight into learning not easily measured by traditional evaluation. As others have noted, the list of real-world ethical and professional dilemmas that beginning students face every day does not

correlate well with topics on the syllabi of most traditional medical school courses [3]. In addition, many interactions in the ED are unpredictable, influenced by arbitrary patient assignments, informal encounters, and fortunate (or unfortunate) accidents. Such challenges are further confounded by issues that are common for all EM learners – taking short cuts, acknowledging mistakes, engaging bias, and choosing appropriate role models. Recurring themes included caring and compassion, sensitivity, appropriate use of symptomatic care; and integrity in conduct and responsibility with patients. Students appear to be thoughtfully monitoring their experiences and interactions in order to determine their own desired future behavior. These results are consistent with other investigators who analyzed narratives from fourth-year medical students and concluded that day-to-day clinical experiences in the ED influenced professional development [1,4]. Although our study focused on beginning medical students, similar observations are likely made by residents, novice faculty, and ED staff.

Perhaps the first step to meaningful curricular change is simply to listen to our students. Their descriptions of what they are learning reveal what we are actually teaching [3]. Faculty and residents may not fully be able to see and to hear beliefs, standards, and implicit codes of behavior as they pass these on to the next generation. Future research efforts could address this further by investigating the impact of sharing the results of student reflective essays with residents, faculty and staff.

Jeffrey Jones
Department of Emergency Medicine, Michigan State University College of Human Medicine, Grand Rapids, MI, United States
Department of Emergency Medicine, Spectrum Health Hospitals, Grand Rapids, MI, United States
Corresponding author at: 15Michigan St NE Suite 701, Grand Rapids,MI 49503, United States.
E-mail address: Jeffrey.Jones@spectrumhealth.org

Rohit Abraham
Department of Emergency Medicine, Michigan State University College of Human Medicine, Grand Rapids, MI, United States

Matthew Emery[1]
Department of Emergency Medicine, Michigan State University College of Human Medicine, Grand Rapids, MI, United States
Department of Emergency Medicine, Spectrum Health Hospitals, Grand Rapids, MI, United States

Lindsey Ouellette[2]
Department of Emergency Medicine, Michigan State University College of Human Medicine, Grand Rapids, MI, United States

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[1] 15 Michigan St NE Suite 501, Grand Rapids, MI 49503, United States
[2] 15 Michigan St NE 736-B, Grand Rapids, MI 49503, United States

Retrospective chart reviews: Assessing delays in IRB approval

The retrospective chart review (RCR), also known as a medical record review, is a commonly used study design in the emergency medicine literature [1,2]. The RCR uses pre-recorded, patient-centered data to answer one or more research questions. Federal regulations require that retrospective chart reviews RCRs be reviewed and approved by a local institutional review board (IRB) prior to conducting the research [3]. IRB approval may be delayed because of missing, incomplete or contradictory documentation, errors, or omissions in the protocol or application. The aim of our study is to review research proposals submitted to the Institutional Review Board (IRB) at one academic medical center to 1) determine the proportion of research protocols that use data exclusively from chart reviews; and 2) assess and quantify the kinds of documentation deficiencies commonly seen.

This was a cross-sectional analysis using research proposals submitted to the IRB at one academic-affiliated medical center during a 54-month study period. Inclusion criteria included any original research proposals that relied solely on data from medical records to answer the questions posed by the study. Exclusion criteria included research proposals relying on death certificates, coroners' reports, or other public records, and all studies based on animal or laboratory investigations. The proportion of all original research protocols that relied on chart reviews and the proportions of chart review articles that qualify for exempt versus expedited review were determined. We quantified the time required from submission to final IRB approval using times recorded by IRBManager software. In addition, IRB communications to the principal investigator were analyzed to determine the reasons for delays in IRB approval. To ensure the accuracy of data abstraction, all investigators assessed several mock research proposals to evaluate the consistency of coding and to clarify the coding system. A blinded critical review of a random sample of 10% of the charts was

Table 1
Deficiencies noted in retrospective protocols submitted to IRB (N = 796).

Logistic (administrative)	
Missing documentation (CITI, COI, other)	128 (16.1%)
Personnel issues/changes	81 (10.2%)
Inadequate rationale for waiver	37 (4.6%)
Version control:	31 (3.9%)
Problems with the application (describe)	19 (2.4%)
Participating institutions (setting)	18 (2.3%)
Other (describe):	8 (1.0%)
Editorial	
Clarifications in the protocol	72 (9.0%)
Definition of variables	26 (3.3%)
Adding or deleting sentences	17 (2.1%)
Word choice, grammar, tense, phrasing	8 (1.0%)
Other (describe):	7 (0.9%)
Procedural	
Data elements (database described)	82 (10.3%)
Sample size calculated	46 (5.8%)
Missing inclusion or exclusion criteria	33 (4.1%)
Timelines	25 (3.1%)
Chart review procedure	17 (2.1%)
Unclear hypothesis or aim	15 (1.9%)
Statistical questions	13 (1.6%)
Inadequate justification	8 (1.0%)
Other (describe):	10 (1.3%)
Ethical	
Data storage	67 (8.4%)
Subject privacy and confidentiality (HIPAA)	19 (2.4%)
Other (describe):	8 (1.0%)