Ethical Issues Confronting Medical Students during a Clerkship in Emergency Medicine

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Background: *Little is known about the ethical issues confronting medical students during their first exposure to emergency medicine (EM). The aim of this study was to review student narratives to determine the type and frequency of ethical issues that beginning students confront in the emergency department (ED).*

Methods: *This was a prospective, qualitative observational study of consecutive first- and second-year medical students electing to do a pre-clinical clerkship in EM at five university-affiliated hospitals. Students were asked to write a short description of three cases that had the greatest impact on them during the month-long clerkship. Each essay was independently analyzed by five members of the research team. Descriptive and kappa statistics were used to summarize the data.*

Results: *During the 4-year study period, 292 consecutive student essays were evaluated from 103 medical students. A total of 194 specific incidents were coded across 15 categories of ethical standards. Overall, 71.1% (138/194) were depictions of exemplary instances of ethical issues, 13.9% (27/194) were considered normal interactions, and 14.9% (29/194) were categorized as unethical behavior. While generally impressed by the admirable behavior of faculty and staff, students were quick to describe instances of improper treatment of patients, such as poor communication, discrimination, improper pain management, or a perceived lack of empathy.*

Conclusions: *Narrative essays describe a wide variety of interesting ethical situations that beginning medical students confront during their clerkships. Many of these ethical interactions seem to be connected to the student's role as an observer of the health care team and how that role can lead to ethical tension. As educators, we need to shine a light on the subtle ethical issues that clerkship students struggle with daily and give them practical tools to deal with moral decisions required of them in medical practice.*

Keywords: *Medical students; Narratives; Ethics; Emergency department*

INTRODUCTION

Medical ethics education has become an important component of the undergraduate core curriculum in most medical schools. While there is a general agreement on the importance of medical ethics to the training of future doctors, there is still significant debate in the curricular content, organization, and delivery across different institutions.[1] Moreover, there are few studies in the literature about what key ethical dilemmas are confronted by medical students as they enter the clinical wards and the impact these dilemmas may have on their resulting clinical practice.[2] Medical educators have a responsibility to assist students as they navigate ethical dilemmas encountered during clerkships and other patient encounters. Portraying and elaborating on real experiences or conflicts allow for students to relate to and learn from other students and practitioners.

We used narrative essays as a valuable source of information about ethical problems that students encounter during their emergency medicine (EM) clerkships. These essays typically describe a personal experience or a lesson learned while in the emergency department (ED). They are assigned to encourage authentic reflection and to promote the professional growth of our students.[3–6] The objective of this study was to review these essays to determine the type and frequency of ethical issues that beginning students confront in the ED.

METHODS

We conducted a prospective, qualitative observational study of all first- and second-year medical students electing to do a pre-clinical clerkship in EM at university-affiliated hospitals between 2014 and 2017. The settings varied, as participating students rotated at two

urban hospitals, several rural community medical centers, and a children's hospital. Clerkship students signed up for three 4-hour shifts during which they shadowed an attending or resident physician in the ED. During the 4-year study period, all medical students were asked to write a narrative description of three cases that had the greatest impact on them during the month-long clerkship.[7] This assignment was part of their clerkship requirement and it occurred at the end of the rotation. They were given no other guidance or suggestions and were blinded to our study objectives. Papers were to be approximately two pages in length and were submitted online to the clerkship director. The assignment was formative by nature, and students received credit for completion, regardless of the content of their submission. All submissions during the study period were included in our analysis. Each narrative essay was deidentified, assigned numbers, copied, and distributed to the five members of the research team. Essays were independently analyzed by five EM investigators with different clinical and academic backgrounds. These abstractors included two EM clerkship directors, a clinical research associate with a background in educational research, a senior EM resident, and a fourth-year medical student.

The main outcome was the type and frequency of ethical issues described by medical students. Our coding system for ethical problems or violations was adapted from a classification scheme created by the Bioethics Research Library at Georgetown University.[8] All ethical incidents described were then categorized as negative or positive, depending on how they were depicted by the student. Negative incidents were those in which someone violated an ethical standard or norm, while positive incidents exemplified these standards.[7]

In order to prevent measurement bias, we took several measures. Initially, all of the investigators coded and discussed five hypothetical narrative essays to measure the consistency of coding and validate the coding system. One investigator met frequently with abstractors to address questions and determine the uniformity of data abstraction. Dialogue and peer debriefing safeguarded the reliability of the overall findings. Any disagreements in coding were evaluated by all investigators and discussed to reach an agreement. A blinded critical review of a random sample of 20% of the essays was done to determine the reliability of the data abstraction. The inter-rater agreement for this sample of charts was determined using kappa statistics. Finally, standardized data collection forms were used to manage data abstraction and coding.

According to previously published data from our department of EM, we expected that the prevalence of ethical issues in our student narratives would be approximately 50%.[7] Using a 95% confidence error and α error rate of 5%, we estimated that a sample size of 385 essays would be needed to have 80% power. However, because there were no instances of missing data or withdrawals, we stopped data collection after 4 years, which provided us with more than enough patients to assess our study outcomes. Descriptive statistics were calculated to summarize the data. The study was approved by the local institutional review board.

RESULTS

During the study period, 292 consecutive student essays were evaluated from 103 medical students. The mean student age was 26 ± 3 years; 55% were male. In general, students provided well-written and thoughtful narratives. A total of 194 specific incidents were coded across 15 categories of ethical standards (Table 1). The most common category was the education of health care professionals (19.6%). Students emphasized the chaotic environment of the ED influenced by complex and increasingly sick patients, multiple interruptions, busy workloads, and fortunate (or unfortunate) accidents. Such challenges are further confounded by issues that are common for all EM learners – making mistakes, encountering bias, learning shortcuts, and choosing physician role models.

Additional recurring themes included access and equity in healthcare (14.4%), limitations of medical knowledge (9.8%), communication skills (9.8%), consent (9.3%), and quality of life (9.3%). Students appeared to be thoughtfully describing their experiences and interactions to provide insight into their own values, behavior, and perceptions of EM. While generally impressed by the admirable behavior of faculty and staff, students were quick to describe instances of improper treatment of patients, be it poor communication, discrimination, derogatory references, improper pain management, or a perceived lack of empathy (Table 2). The majority of all ethical incidents involved clinician interaction with patients or families (58.7%), followed by interprofessional incidents (41.2%). One member of the research team analyzed 60 student essays and a k-statistic was performed to compare coding and to ensure consistency of data, which showed a moderate degree of agreement ($k = 0.78$).

Table 1. Categorization of bioethical incidents (*N* = 194).

Education of healthcare professionals	38 (19.6%)
Challenging patients	16 (8.2%)
Teaching environment	8 (4.1%)
Being a 'team player'	6 (3.1%)
Competing priorities	4 (2.1%)
Hierarchy of authority	4 (2.1%)
Access to and equity in healthcare	28 (14.4%)
Cost of care	14 (7.2%)
Right to health care	6 (3.1%)
Resource allocation	5 (2.6%)
Withdrawal of treatment	3 (1.5%)
Medical knowledge	19 (9.8%)
Limitations of knowledge	9 (4.6%)
Psychosocial issues	5 (2.6%)
Questionable departures from standard practice	3 (1.5%)
Medical error	2 (1.0%)
Communication skills	19 (9.8%)
Difficult communications	8 (4.1%)
Conflict resolution	6 (3.1%)
Language barriers	3 (1.5%)
Truth disclosure	2 (1.0%)
Informed consent	18 (9.3%)
Right to refuse treatment	13 (6.7%)
Parental consent/minors	3 (1.5%)
Surrogate decision-making	2 (1.0%)
Quality or value of life	18 (9.3%)
Compassion	14 (7.2%)
Patient dehumanization	3 (1.5%)
Nonmaleficence (do no harm)	1 (0.5%)
Death and dying	17 (8.8%)
Care of the dying patient	8 (4.1%)
Death telling, attitudes toward death	4 (2.1%)
Suicide	3 (1.5%)
Living wills/advance directives	2 (1.0%)
Respect	15 (7.7%)
Socioeconomic disparity	6 (3.1%)
Substance abuse history	6 (3.1%)
Religious, gender, cultural conflicts	3 (1.5%)
Suspicion of abuse (child, domestic, elderly)	10 (5.2%)
Unrealistic patient expectations	9 (4.6%)
Confidentiality	2 (1.0%)
Reproduction (contraception, abortion)	1 (0.5%)
Artificial and transplanted organs	0
Human experimentation	0
Genetics	0

It was apparent that the clerkship provided a number of both positive and negative influences on students. Overall, 71.1% (138/194) of the ethical incidents described by students were positive and included conflict resolution, respect, sensitivity, accountability, empathy, and role-modeling. These reflections likely shaped student perceptions of the medical profession as well as their views of EM as a specialty. A total of 13.9% (27/194) were considered normal ethical interactions, while 14.9% (29/194) were categorized as unethical behavior. These unethical interactions included truth disclosure, poor communication, emotional detachment, loss of idealism, dehumanization, lack of confidentiality, appropriate informed consent, and questionable departures from standard practice (Table 2).

DISCUSSION

The majority of EM clerkships in the United States occur in the fourth and final year of training.[9] Our institution also offers a 1-month EM clerkship to beginning students in their first or second year who would like early exposure to clinical medicine. Students mostly shadow residents and attending physicians while rotating through five different EDs, including an inner-city hospital, several rural community medical centers, and one pediatric hospital. This was the first exposure that students had in the complex and often chaotic ED setting. Our study provides a unique view of the ethical and professional struggles these beginning medical students confront during their first clerkship. Medical student essays described a wide variety of interesting ethical situations. Drawn from daily experience, these learning situations occurred at the patient's bedside, during breaks, or in the elevator or hallway. As one student described: '*I noticed that a lot of the doctors and nurses vent to each other in the backroom of the ER*'. First-year students who are not familiar with the ED environment, such as students without a medical background, may experience more emotional conflict in this learning process than more mature students.

Many of these ethical interactions seem to be connected to the student's role of the observer on the health care team and how that role can lead to ethical tension.[10] Examples include witnessing unethical acts committed by other members of the medical team, trying to be a good 'team player', concern about their grades and evaluations, knowing a patient more personally than the rest of the team, and dealing with angry or disruptive families. Although encouraged by accounts in which students described 'exemplary' instances of ethical situations, students also indicated that they struggled with certain dilemmas and their unsatisfactory resolution during the month-long clerkship.

Table 2. Excerpts taken from student narratives.

'The best way to describe the emergency room is controlled chaos'.
'A patient came in with a pseudo-seizure, which she had a history of several times previously. I walked into the ER to hear several residents and social workers whispering about this patient, discussing her "fake seizure" and "fake symptoms"'.
'I felt a culture of helping people learn without embarrassing them as I watched the intern work on the dislocated shoulder with two attendings in the room. They gave him tips and feedback without demeaning him'.
'It was interesting to see how physicians were able to take a firm line in not giving them the narcotics they were requesting but giving alternatives and not shaming the patients'.
'The resident turned to me and said "This is the worst shift ever. Maybe you should go into plastic surgery"'.
'Difficult conversations like this (end-of life) are going to be a part of my life as a future physician and I am thankful to have the opportunity to see physicians ahead of me in training handle these situations gracefully'.
'One of the nurses signaled for me to come speak to her. She told me how this patient would be such a pain, taking up a bed for truly sick people, and would have to be baby-sat until he sobered up. This led me to formulate the opinion that this patient was a nuisance, instead of reminding myself that substance abusers are humans with souls just like me'.
'The attending said, "Your husband didn't suffer." I knew this wasn't true but patient's families often worry tremendously about how or whether their loved ones suffered at the time of their death. I will carry this wisdom that he shared with me into my practice'.
'She wanted the patient to be admitted to the hospital but explained that the decision was determined more by insurance constraints than by her personal judgement'.
'With time running out, the resident had to decide whether to do what she believed was best for the patient or to do what was legal and not administer the TPA without consent from the guardian'.
'A few words into the conversation (with consultant), I heard angry yelling from the other end. The resident's face turned a bright red as she firmly stated "Okay sir, I will call you in 20 min when I know the hemoglobin count." She turned to me and said, "I would have cried as an intern. But I'm not crying today." She said with a smile, "You get used to it. It's a part of the job"'.
'I hope that this boy was not being abused and that he can get some help, but I will never know. What I do know is that he taught me not to judge someone when I walk into a room, because there could be sad and terrible reasons why someone acts the way they do'.
'It was refreshing to see Dr. _______ and the residents joking around, enjoying their job but being respectful about patients and knowing when to be serious'.
'It was interesting to see the dynamics in the ER with homeless patients that are brought in. Most of them were intoxicated and had been there on several occasions before, so the staff didn't pay them much attention, merely put a bed in the hallway and let them sleep it off. However, I found myself wondering several times during the evening if the ER was really the best place to bring them or if a homeless shelter would have been more appropriate?'

The ED can be a challenging place for beginning medical students and presents a unique set of conditions that may contribute to a difficult learning experience. These learners encounter many new and different issues not confronted in other areas of medicine. Ethical tension is heightened by several factors such as urgency, (in)efficiency, unrealistic expectations, overcrowding, and the high incidence of impaired cognitive abilities in the patients. One study demonstrated that ED patients admitted to the hospital often present with ethical issues significantly affecting their health care and overall medical outcomes.[11] However, ethical challenges can be found in every health care setting. The question is what effect these ethical challenges have on the student's moral development and their subsequent perception of medicine and its values.

The results of studies performed in this country and worldwide demonstrate that 'ethical erosion' is a universal and serious problem among medical students.[10,12–15] These studies, using different methodologies, came to divergent conclusions – showing decreased ethical sensitivity and/or a significant decline in moral

development throughout their medical education. For example, Feudtner et al. surveyed 665 third- and fourth-year medical students, and 62% of them felt that their ethical principles had been seriously eroded or lost.[10] In a similar survey, Hicks and colleagues found that 47% of medical students had been placed in a clinical situation in which they had felt pressure to act unethically and 61% had witnessed a clinical teacher acting unethically.[14] Clinical faculty who exhibit unethical or unprofessional behavior toward patients was the most frequently cited problem.[14] Because students are in a formative phase, have limited clinical knowledge, and are dependent on faculty, they may be especially distressed by unethical behavior and sensitive to the responses of others. In contrast, ethical dilemmas may present an opportunity for faculty and residents to model professional values, such as sensitivity, accountability, and integrity.

Although all medical schools in the United States now require that ethics be included in the undergraduate curriculum, the best approach to teaching ethics to students is still debated. Although problem-based discussion is a commonly used method for teaching ethics, several innovative strategies have been suggested by educators. Examples include role-modeling, workshops, didactic sessions, team-based learning, hospital ethics committee discussions, essays, faculty-student mentorship sessions, online modules, pastoral care shadowing, and simulation-based clinical scenarios.[1,16,17]

There is a need for rigorous studies to determine the best strategies for teaching medical ethics and to evaluate their long-term impact on clinical practice.[17] Knowledge of these teaching approaches would greatly assist faculty in developing the best ethical curriculum for their particular institution. The ultimate challenge will be to '*develop a curriculum that will enable medical students to at least maintain their stage of moral development if not increase it through the medical education experience*'.[12]

Teaching medical ethics to medical students in a diverse society can be challenging. Educators are responsible not just to teach the subject matter but to create an environment that reinforces a student's moral development.[2,4] As far back as 1994, medical educators were encouraging medical schools to place emphasis on the ethical aspects of daily medical practice and not just on dramatic cases with important historical implications.[2,18] These historical cases often emphasize tough decisions that physicians will not make until much later in their professional careers while largely discounting the ethical decisions that clerkship students make daily.[10] Christakis and Feudtner in their classic article, 'Ethics in a Short White Coat', have critically studied the way medical ethics is taught in many institutions. They concluded that, '*ethical education must be participant-driven and developmentally stage-specific, focusing more attention on the kinds of ethical decisions made by medical students as opposed to those made by residents or practicing physicians*'.[2]

Our results are consistent with other researchers who evaluated student narratives from medical students and concluded that day-to-day clinical experiences during clerkships significantly influenced moral development as well as professional identity.[2,3,5,15] Further study into what students encounter and relay through essays or narratives will help to guide and add structure to any ethics-based curricula. Going forward, we plan to share the results of our student narratives with EM faculty and residents to make them more responsible in modelling ethical behavior and how they might encourage students to speak up if they have moral or ethical concerns during patient care.[16]

Several limitations were inherent in this qualitative observational study. These included the small sample size and the subjective nature of the narrative essays (response bias). Students were instructed to write about three cases that had the greatest impact on them during their ED clerkship. To reduce measurement bias, they were kept blinded to our study objectives and were not specifically asked to address ethical issues or professionalism. However, many of the essays focused on their struggles to be an ED physician and the consequent moral and ethical concerns (Table 1). These results might not be generalizable to more advanced students or those rotating in other clinical departments.

We took several steps to ensure the accuracy of coding; however, the interrater reliability was only moderate, with a median kappa statistic of 0.78. And finally, although our students had pre-clerkships at five hospitals, all came from a single midwestern medical school that might limit applicability. However, our findings resonate with other qualitative studies using narrative essays to explore ethical dilemmas that students confront in the ED[15,17] and in other hospital clerkships.[2,3] In addition, we continued to recognize these same ethical categories (Table 1) in the informal review of narrative essays written by subsequent groups of medical

students over the following years. The type and frequency of ethical issues documented here are likely an underrepresentation of the situations that students confront during their first clerkship. Even when students seem to write honestly, there will be influences either hidden from the students themselves or so taboo that students do not feel comfortable writing about them.

CONCLUSIONS

Narrative essays describe a wide variety of interesting ethical situations that medical students confront during their EM clerkships. This study provides a unique view of the ethical struggles that medical students confront during their first clerkship. The ED can be a challenging place for beginning medical students where they encounter moral, professional, and ethical issues not confronted in other areas of medicine. Many of these interactions seem to be connected to the student's role of the observer on the health care team and how that role can lead to ethical tension. Going forward, we plan to share these results with our EM faculty to make them more responsible in modelling ethical behavior and suggest ways they might encourage students to speak up when they have moral or ethical concerns. As educators, we need to shine a light on the subtle ethical dilemmas that clerkship students struggle with daily and give them practical tools to deal with moral decisions required of them in medical practice.

Conflict of interest and funding

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