Educating for Ethical Engagement: Teaching Ethics to Graduate and Professional Students

TOBY SCHONFELD Emory University

I teach at an institution whose vision statement includes the term "ethically engaged." Indeed, the goal is to engage in discourse in a way that fosters "openness and diversity of thought, experience, and culture"; to have scholars and students who "actively debate principles" with a commitment to "integrity and honor"; and to enhance the environment "through innovative stewardship" (Emory University). The commitment demonstrated by the administration to these principles should not be understated; without support at the top of an institution's hierarchy, any effort to enforce policies or standards at the lower levels will inevitably fail. In addition, the culture of an organization is at least partly shaped by its leadership, and as a result having an administration dedicated to ethical action among its scholars and students helps generate a sense of positive energy toward "doing the right thing," as it were.

Yet it is at the level of direct interaction where ethical engagement is both developed and tested. We want graduate student researchers to use proper scientific methods, to respect individuals and populations who are partners with them in their research, and to craft research products that are both intellectually rigorous and useful to others. We want professional students to learn to conduct business transactions fairly; to honor the dignity and integrity of patients, clients, and colleagues; and to embrace diversity of cultures, traditions, and perspectives. And as these students become teachers themselves, we want them not only to model appropriate interaction and research processes, but also to learn to assess students' progress with an eye towards justice and equality.

In order to produce the professionals who embody these characteristics, faculty must teach by example, but not only this, for the skills, habits, and dispositions towards ethical action can be—and must be—taught explicitly (Bird 1996, 783–86). Just as we would not expect a physician to know all that she needed about nephrology by inferring form and function from the surrounding systems, so too is it that we cannot anticipate graduate and professional students will be able to infer ethical engagement simply through "reading between the lines." (In fact, explicit instruction in ethics is often required to combat precisely what the students *do* receive "between the lines"!) The job of graduate and professional educators includes preparing students to participate in an active citizenry, where scholars and professionals can both articulate and implement the foundations of ethical behavior both in their areas of specialty and in society more broadly.

In this essay, I will describe the goals of ethics education for two main categories of post-baccalaureate students: graduate students and professional students. I will then discuss how the goals of each educational endeavor ideally shape the curriculum that is developed. Next I will turn to discuss common content areas for ethics instruction (*what* one should teach), as well as to issues of ethics pedagogy (*how* one should teach). I conclude with a discussion of evaluation and

assessment of ethics education for graduate and professional students, and demonstrate how these essential features ultimately cycle back to goal development and curricular design.

Goals of ethics education

As Ralph Tyler comments in his classic work on curriculum design, "[I]f an educational program is to be planned and if efforts for continued improvement are to be made, it is very necessary to have some conception of the goals that are being aimed at" (Tyler 1970, 3). That is, while it is true that some instructors can craft an effective course without first considering the goals of the curriculum, it is difficult to sustain such efforts without a more comprehensive view of learning outcomes. And while, broadly speaking, the goal of ethics education is to teach students to "act ethically," more specific learning objectives will better ensure that the curriculum will enable students to achieve the desired outcome.

Graduate education

Most graduate education in ethics revolves around what is known as the responsible conduct of research (RCR), which refers to "overlapping concepts related to the discovery and dissemination of new knowledge: research, responsible science, scientific integrity, and responsible researchers" (Horner and Minifie 2011, S304). Given that the overall goal of graduate education is to produce the next generation of researchers, scholars, and teachers, effective RCR training lays a foundation from which these students can become effective purveyors of all aspects of their craft.

Most RCR instruction aims at instilling a particular set of values in students from which ethical action should emerge. What are those values? Scholars have proposed a series of foundational principles, ranging from those specifically related to research involving human participants and codified in the Belmont Report (respect for persons, beneficence, and justice) to those seen as "fundamental to the scientific enterprise as a whole...: truthfulness, trust, ...best interests, ...carefulness, openness, freedom, credit, education, social responsibility, legality, opportunity, and mutual respect" (Horner and Minifie 2011, S305).

While this work has gained prominence in the past few years in the STEM disciplines (science, technology, engineering, and math), the goal of producing scholars committed to the principles of ethical research transcends disciplinary lines. Indeed, some programs specifically aim at teaching skills that transfer beyond the discipline (see Weisblat and Sell 2012). Yet, consider the following definition: "RCR refers to the commitment and integrity of researchers—and all who participate in the research enterprise—to the norms of science, who—by engaging in systematic, responsible practices while proposing, performing, evaluating, and reporting research—contribute to an accurate, worthwhile, and enduring scientific record" (Horner and Minifie 2011, S304). Whether that "scientific record" is in chemistry, sociology, or art history, the goal of instilling core values within graduate education is relevant for all students.

Professional education

There are several reasons why training programs for professionals, especially health professionals, include ethics education. First, many hope that ethics education will enable the professional to recognize and effectively address ethical issues in clinical practice (Smith et al. 2004; Eckles et al. 2005; Smith et al. 1994; Opel and Olson 2012), in policy development (Agee and Gimbel 2009), or in the clinical environment (Lin et al. 2013). Students will change both their behaviors and attitudes as a result of the ethics education in which they participate (Gross 1999). Some programs aim at the moral development of students, most often measured in relation to Kohlberg's schema (Dieruf 2004; Gross 1999; Self, Wolinsky, and Baldwin 1989; Bebeau and Thoma 1994; Quinn, Kinnison, and May 2012). Others aim at the "correction" of negative influences by powerful role models, sometimes referred to as the "hidden curriculum" (Wester, Willse, and Davis 2010; Lynoe, Lofmark, and Thulesius 2008; Kittmer et al. 2013).

For both professional and graduate students, opportunities to participate in the global community create another set of educational goals. Students who are inadequately trained in ethics may in fact help to perpetuate some of the inequities that they hope to address (Lahey 2012). Therefore, students must be prepared for the ethical complexities of research and professional practice in an international context.

There is some evidence that explicitly teaching ethics to students is correlated with positive ethical behavior (Wester, Willse, and Davis 2010). This is true largely because ethics is "relational in nature," and therefore attitudinal and behavioral shifts are particularly relevant (Milligan and Woodley 2009). For some, the goals of ethics education in the health professions is to enable "students to see ethics as a transformative, relational, and engaged endeavor in which their role is not to be an ethical 'expert' but rather to be informed and sensitive interlocutors within the multiple relationships of the health care setting" (Milligan and Woodley 2009, 133).

How the goals shape curriculum design

Despite a set of common goals, there is a variety of approaches to achieving successful ethics education for graduate and professional education (Lewin et al. 2004; Goldie 2000). Many curricula are practically focused, in the belief that attending to "real-world dilemmas" produces professionals who are equipped to address the ethical intricacies of clinical practice, scientific research, and a changing global environment (Roberts et al. 2005). Yet this may not be sufficient: one study comments that "embracing values and acquiring reasoning skills are not in fact sufficient to ensure ethical practice," since organizational pressures for efficiency, among other pressures, may result in trainees' inability to implement what they know is the right thing to do (McDougall 2009, 203–206). Therefore, good curriculum design must include not just the transfer of relevant knowledge, skills, and attitudes, but rather must also include practical strategies for the implementation of students' new competencies given the reality of their future environments (McDougall 2009, 203–206).

This is especially true if the goal of the curriculum is value inculcation and implementation. Integrity can only be demonstrated through ethical action, so if there are institutional, hierarchical, social, or economic challenges to the implementation of core values, they must be included as part of the curriculum. Systemic pressures are not ancillary to educational design—they are essential to it.

Professional ethical education has often been communicated largely through the apprenticeship or mentoring model, but critics have attacked this methodology for both its lack of theoretical grounding and the impact of poor role models (Satterwhite, Satterwhite III, and Enarson 2000). Explicit education in ethics and professionalism provides students with the skill set necessary to apply fundamental value constructs in practice in a more comprehensive way than implicit modeling does. Students can learn about styles of implementation of core concepts from an apprenticeship model, but direct, longitudinal, and well-designed education in ethics and professionalism will make trainees more comfortable with and confident in topics in ethics.

One important partner in curriculum design is often overlooked: the admissions committee. Since admissions committees assess fitness for success in a particular curriculum, they must work closely with the faculty responsible for curriculum to ensure a good match between curriculum design and student characteristics. To see what kind of impact this might have, consider that one scholar suggests that because effective teaching of ethics requires students be comfortable with fundamental concepts of ambiguity, admissions committees consider assessing "tolerance for ambiguity" as a criterion of selection (Geller 2013, 581–584). Regardless of the appropriate criteria, there is a necessary connection between goals, curriculum design, and student admissions.

Integration of curriculum within larger framework

Some argue that the best way to ensure that students are prepared to identify and address ethical issues as they arise is to establish "a curriculum that situates...ethical experiences to trainees in a more systematic fashion and within a structured format, thus allowing them to more explicitly build ethical reasoning skills" (Silverman et al. 2013, 58). Yet such a curriculum design could take many forms: discrete ethics courses as both required and elective elements of a training program, carefully-planned (and transparently communicated to students) integration of ethics topics throughout an overall curriculum, or a series of informal workshops and sessions that are interdisciplinary and broad-based. It is often the structure of the overall curriculum that constrains the design of the ethics piece: there is often a trade-off between devoting explicit time to professionalism topics and communicating "core" knowledge of the field. The variability of structures at institutions—and within programs at those institutions—makes it difficult to recommend a "one size fits all" structure for ethics instruction to graduate and professional students. Yet note that the organizational structure provides *both* opportunities and limitations for ethics instruction.

Decisions about content: What to teach

Content dictates form; that is, *what* one teaches ought to dictate *how* one teaches. Yet there is no consensus about either of these features in the ethics community. In what follows, I will describe some broad considerations that may assist designing ethics curricula for graduate and professional students, although I do not present these considerations as exhaustive.

Professional and accrediting organizations

Many professional organizations have either required ethics education as part of their accreditation requirements for curricula, or added licensing and continuing education requirements in ethics. The Office of Research Integrity (ORI) of the Department of Health and Human Services has identified nine core areas that are essential components of RCR education (Steneck 2007). Since the ORI is the oversight body responsible for Public Health Service research integrity activities, its broad purview adds influence and authority to its recommendations (Steneck 2007 p. v). Both the National Institutes of Health (NIH) and the National Science Foundation (NSF) have long required ethics training for those participating in grants that they fund. In addition to identifying general principles supporting ethics instruction, the NIH suggests a list of topics on which there is common agreement (National Institutes of Health 2011). Additionally, the Council of Graduate Schools (CGS) has pioneered several initiatives to encourage and facilitate instruction in these areas.[1]

For health professions students, ethics and professionalism standards are essential components of medical education and training programs, as recognized by the two major accrediting bodies of Schools of Medicine: the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME). Programs in nursing and allied health professions also have accrediting and licensing agencies that specify ethics training. Finally, the national bioethics association, the American Society for Bioethics and Humanities (ASBH), has developed a document that outlines the core competencies necessary for bioethics clinical consultants, as well as a companion piece that serves as an education guide for achieving the objectives outlined in the core competencies document.

General content considerations

Because ethics education is multi-faceted, considerations of content are not limited to simply a list of subjects worth discussing, but instead must also include processes of skill development and mastery of appropriate attitudes. Much of curriculum design in ethics, then, involves identifying relevant knowledge, skills, and attitudes (KSAs). One group at Georgetown University has identified the central topics for RCR training that reflects not just the mastery of content knowledge, but also skill and attitude development (Tractenberg and FitzGerald 2012). In addition, health care educators are increasingly expected to instruct students not only on clinical competencies, but also critical thinking and professional partnering skills, technological

aptitude, computer competence, and informatics (Litchfield et al. 2000, and Hayward and Cairns, 2001).

Yet even knowing that "content" is a broad consideration in ethics does not guarantee consensus in instruction. Two surveys revealed the breadth of methods and topics used in ethics education at U.S. and Canadian medical schools (DuBois and Burkemper 2002, 432–437; Lehmann et al. 2004, 682–689). Authors of both studies agree that a "common core curriculum" does not exist, and that a significant gap remains between ideal and real curricula. Similar findings have been confirmed in parts of Europe (Mijaljica 2013).

A recent paper describes a novel, alternative approach to ethics education. Rather than listing specific topics, McCammon and Brody argue for teaching virtue ethics as a methodology to medical professionals. They claim that this approach provides at least three advantages: (1) deliberately teaching medical virtues can produce trainees who exhibit professional behavior regardless of the aptitude with which they entered the profession; (2) viewing virtue formation as a life-long process emphasizes the continual development of professional identity rather than presenting it as something whose competency can be mastered; and (3) recognizing moral distress as an inevitable byproduct of the virtuous professional's actions promotes an open, transparent discussion of morally troubling features of professional life (McCammon and Brody 2012, 257–272).

Decisions about pedagogy: How to teach

Ethics instruction, especially to an audience of professionals or soon-to-be professionals, carries with it its own set of challenges and opportunities. A good review of what makes ethics education different, and difficult, to teach was produced by Felicia Cohn (Cohn 2012, 164–171). The overall goal is to view students as partners in education, not as passive recipients of knowledge (Milligan and Woodley 2009, 131–139). This means detailing a structure that enables students to engage meaningfully with the work, which can be time consuming and intensive for both students and faculty alike.

Using cases well

In ethics, cases are often seen as the primary pedagogical vehicle for delivering relevant knowledge, developing skills, and effecting change in attitude, at least partly by recognizing the value of narrative medicine (Charon 2012, 342–347; Foreman, Hark, and DeLisser 2012, 29–37; Garrison et al. 2011, 85–89; Jawaid et al. 2011, 66–70; Stephens et al. 2012, 26–30). One study investigated the type of case that is likely to be most effective in promoting learning and found that cases that include social context details are more effective (Bagdasarov et al. 2012b), as well as those cases with a simple causal structure (Johnson et al. 2012, 63–77). Another study that compared the effectiveness of case-based instruction on learning, retention, and ethical decision-making found that well-structured cases and assignments led to greater effectiveness in instruction (Bagdasarov et al. 2012a, 79–86). In addition, "reflection" as an exercise is neither

one clearly defined process nor easy to teach to novice learners; as a result, faculty incorporating reflective writing into a curriculum must consider carefully the meaning, structure, and desired outcomes for the exercise (Wald and Reis 2010, 746–749; Cohn et al. 2009, 587–596; Wear et al. 2012, 603–609).

Building on the successes of incorporating reflective writing into medical education generally, one study compared two teaching methods—written case analyses and written case analyses with group discussion—to determine the effectiveness of each method on enhancing students' ability to identify and assess ethical issues (Smith et al. 2004, 265–271). Not surprisingly, the investigators concluded that group discussion of the cases added educational value; students' ability to identify and assess ethical issues improved after a structured, facilitated discussion session (Smith et al. 2004, 265–271).

Not all case-based pedagogy is equal. Some scholars criticize the "distilling" of cases down to their essential features on the grounds that critically important contextual details get lost in translation; as a result, students end up with an impoverished array of possible resolutions to a case (Milligan and Woodley 2009, 131–139). In order to address this fear, some programs use "creative expressive" exercises to teach students how to recognize and capture important contextual features of situations (Milligan and Woodley 2009, 131–139).

Relevant case scenarios may be effective in graduate education (Wester 2007, 199–211). Yet whether for graduate or professional education, it may not be ideal to present only cases that result in moral distress or that highlight systematic failures. Indeed, the "tragic" case method of teaching ethics may not be sufficient because it fails to prepare trainees both for the more common, mundane ethical issues and for their likely role in the identification and resolution of an ethical issue (Opel and Olson 2012, 370–373). Rather, a more effective method may be to have students generate their own cases based on ethical quandaries they have experienced in their own research or practice (Opel and Olson 2012, 370–373; Fard, Asghari, and Mirzazadeh 2010, 723–730).

Assessment and Evaluation

Regardless of the approach to teaching ethics, assessment of learning remains a challenge. The goal of higher education is no longer simply the acquisition of knowledge in a particular area, but also the creation of a community of learners who have developed "problem-solving skills, professional skills, and authentic learning, i.e. learning in real-life contexts" (Dochy, Segers, and Sluijsmans 1999, 332). As a result, assessment must go beyond simply measuring the "reproduction of knowledge" (Dochy, Segers, and Sluijsmans 1999, 331–350) and attend to these additional skill sets as well. However, the measurement of such skill sets remains a challenge.

One study compared three approaches to ethics education in graduate social work programs: a discrete course in ethics, an integrated ethics model, and a mixed-model approach. Investigators found that students in the discrete ethics course (which focused on principles of common morality) demonstrated a greater improvement in moral judgment and ethical sensitivity than did

students in either of the other two groups (Sanders and Hoffman 2010, 7–22). Another study demonstrated evidence that even a short lecture focused on an area of research misconduct can be helpful in raising students' awareness of the problem and how to avoid it (Brkic et al. 2012, 570–574).

Whatever the method of instruction chosen, assessment areas must be dictated by the goals of ethics education. Therefore, part of the early stages of curriculum design must include considerations of the measurement of goals when students complete the training program. As Tyler states: "many variables make it impossible to guarantee that the actual learning experiences provided are precisely those that are outlined in the learning units. Hence, it is important to make a more inclusive check as to whether these plans for learning experiences actually function to guide the teacher in producing the sort of outcomes desired" (Tyler 1970, 104). In addition to evaluating the specific coursework, well-designed assessments will "check the validity of the basic hypotheses upon which the instructional program has been designed and developed" (Tyler 1970, 105).

Quantitative vs. qualitative measures

There are efforts to measure students' ethics mastery via quantitative measures. One study describes a multiple choice pre-test/post-test design, where students' scores increased significantly after a 15-week pre-clinical bioethics course (Fernandes, Borges, and Rodabaugh 2012, 92–97). Others have devised a quantitative instrument to measure "dimensions of ethicality" among graduate students that has validity across the four dimensions of data management, study conduct, professional practices, and business practices (Mumford et al. 2006, 319–345). Qualitative measures are often seen as a better way of capturing ethical mastery, as it is only through the application of knowledge and skills that competence is apparent. Yet it is often difficult to achieve inter-rater reliability on these measures in ethics, which compromises the validity of the findings of a study (Lohfeld et al. 2012, 635–642).

However, given that ethics is fundamentally relational, it can be difficult to assess students' skills and attitudes effectively by using quantitative measures alone. Qualitative or mixed method techniques facilitate the evaluation of a question involving many (and sometimes unknown) variables and enables the researcher to consider both emergent themes and the role and influence of the investigator on the subject studied (Creswell 2003). This is particularly valuable in ethics education, where the perspectives of the teacher may have significant influence on the development of the learner. Trainees quickly learn which approaches to an ethics problem the teacher prefers and may quickly shape their habits based on the approach of the instructor. Similarly, listening to a trusted teacher or mentor offer a perspective on an issue is likely to have a significant impact on the way a trainee approaches the problem. And yet we rarely account for these features in curricular assessment; rather, we simply concentrate on whether or not the students seemed to perform adequately according to our objectives. Qualitative measures, however, enable us to probe for these additional features, and to recognize and address them

when they emerge unexpectedly from analysis. Common techniques for eliciting such information come from focus groups or interviews, but even a careful analysis of a case study (whether in a pre-test/post-test format or individually) can provide insight into the intended and unintended influences on students' learning.

Qualitative assessments of ethics teaching abound in the literature. One approach builds on general work on the utility of reflective writing in medicine as a way of enhancing insight into personal and professional values, connecting to and processing cases that are emotionally engaging for practitioners, and managing moral conflicts that may arise in clinical practice (Abildsnes, Flottorp, and Stensland 2012; Cohn et al. 2009; Cayley, Schilling, and Suechting 2007; Chretien, Goldman, and Faselis 2008,; Devlin et al. 2010,; Plack et al. 2007; Song and Stewart 2012; Thiel et al. 2011). Studies have demonstrated the utility of reflective writing in ethics for specific institutions and curricula (Fischer et al. 2011, 166–175), but may not be generalizable (Cohn et al. 2009, 587–596; Chretien et al. 2012, 42–48). Other studies compare written case analysis with and without group discussion (Smith et al. 2004, 265–271), while yet others use a pre-test/post-test model to identify success in achieving learning outcomes (Schonfeld, Dahlke, and Longo 2011, 273–290). Regardless, the assessment method must be dictated by the research questions asked.

Evaluation of curriculum

Many of the aforementioned instruments are designed to measure the effectiveness of a particular course or educational intervention. Yet entire curricula must also be assessed for adequacy of achieving objectives, and such assessment cannot simply consist in aggregating the data from individual courses. To be done well, program-level assessments often require significant investment of faculty, student, and administrator time, and a variety of dimensions of the content, process, and logistics of the curriculum must be considered (Goldman et al. 2012, 300–307). The most successful approaches consider assessment as part of the initial curriculum design, and therefore any instruments (surveys, vignettes, reflections) or processes (focus groups, structured interviews, pre-tests/post-tests) are prepared and planned well ahead of the time for assessment.

Conclusion

As students transition to the professional workforce, they will encounter emergent ethical issues not covered by their training. Indeed, such issues may arise from a myriad of sources, including from engagement with social media and public perceptions of the professional enterprise based on journalistic accounts of misdeeds (Farnan et al. 2013, 620–627; Anderson and Giordano 2013, 58). The only realistic way to prepare students to anticipate and address emergent issues is by providing them with the tools to reason through issues as they develop.

Notes

1. Full disclosure: Emory University has been the recipient of two recent grants from the Council of Graduate Schools, which were used to create and refine the Program on Scholarly Integrity that I direct.

References

- Abildsnes, E., S. Flottorp, and P. Stensland. 2012. "Case Stories in General Practice: A Focus Group Study." *BMJ Open* 2 (4): 10.1136/bmjopen–2012–001208. Print 2012. doi:10.1136/bmjopen–2012–001208; 10.1136/bmjopen–2012–001208.
- Agee, B. and R. W. Gimbel. 2009. "Assessing the Legal and Ethical Preparedness of Master of Public Health Graduates." *American Journal of Public Health* 99.8: 1505–1509. doi:10.2105/AJPH.2007.133173; 10.2105/AJPH.2007.133173.
- Anderson, M. A. and J. Giordano. 2013. "Aequilibrium Prudentis: On the Necessity for Ethics and Policy Studies in the Scientific and Technological Education of Medical Professionals." *BMC Medical Education* 13.1: 58. doi:10.1186/1472–6920–13–58.
- Bagdasarov, Z., L. N. Harkrider, J. F. Johnson, A. E. MacDougall, L. D. Devenport, S. Connelly, M. D. Mumford, and J. Peacock. 2012a. "An Investigation of Case-Based Instructional Strategies on Learning, Retention, and Ethical Decision-Making." *Journal of Empirical Research on Human Research Ethics : JERHRE* 7.4: 79–86. doi:10.1525/jer.2012.7.4.79; 10.1525/jer.2012.7.4.79.
- _____. 2012b. "Case-Based Ethics Instruction: The Influence of Contextual and Individual Factors in Case Content on Ethical Decision-Making." *Science and Engineering Ethics*. doi:10.1007/s11948-012-9414-3.
- Bird, Stephanie J. 1996. "The Role of Science Professionals in Teaching Responsible Research Conduct." *Bioscience* 46.10: 783–86. http://search.ebscohost.com/login.aspx? direct=true&db=eric&AN=EJ534870&site=ehost-live.
- Brkic, S., G. Bogdanovic, Lj Vuckovic-Dekic, D. Gavrilovic, and I. Kezic. 2012. "Science Ethics Education: Effects of a Short Lecture on Plagiarism on the Knowledge of Young Medical Researchers." *Journal of B.U.ON.: Official Journal of the Balkan Union of Oncology* 17.3: 570–574.
- Cayley, W.,Jr, R. Schilling, and R. Suechting. 2007. "Changes in Themes Over Time from Medical Student Journaling." *WMJ*: Official Publication of the State Medical Society of Wisconsin 106.8: 486–489.

- Charon, R. 2012. "At the Membranes of Care: Stories in Narrative Medicine." *Academic Medicine: Journal of the Association of American Medical Colleges* 87.3: 342–347. doi:10.1097/ACM.0b013e3182446fbb; 10.1097/ACM.0b013e3182446fbb.
- Chretien, K., E. Goldman, and C. Faselis. 2008. "The Reflective Writing Class Blog: Using Technology to Promote Reflection and Professional Development." *Journal of General Internal Medicine* 23.12: 2066–2070. doi:10.1007/s11606–008–0796–5; 10.1007/s11606–008–0796–5.
- Chretien, K. C., S. G. Chheda, D. Torre, and K. K. Papp. 2012. "Reflective Writing in the Internal Medicine Clerkship: A National Survey of Clerkship Directors in Internal Medicine." *Teaching and Learning in Medicine* 24.1: 42–48. doi:10.1080/10401334. 2012.641486; 10.1080/10401334.2012.641486.
- Cohn, Felicia. 2012. "Understanding Ethics Pedagogy." In *Guidance for Healthcare Ethics Committees*, edited by D. Micah Hester and Toby L. Schonfeld, 164–171. New York: Cambridge University Press.
- Cohn, F. G., J. Shapiro, D. A. Lie, J. Boker, F. Stephens, and L. A. Leung. 2009. "Interpreting Values Conflicts Experienced by Obstetrics-Gynecology Clerkship Students using Reflective Writing." *Academic Medicine : Journal of the Association of American Medical Colleges* 84.5: 587–596. doi:10.1097/ACM.0b013e31819f6ecc.
- Creswell, John W. 2003. *Research Design: Quantitative, Qualitative, and Mixed Methods Approaches*. 2nd ed. Thousand Oaks, CA: Sage Publications.
- Devlin, M. J., A. Mutnick, D. Balmer, and B. F. Richards. 2010. "Clerkship-Based Reflective Writing: A Rubric for Feedback." *Medical Education* 44.11: 1143–1144. doi:10.1111/j.1365–2923.2010.03815.x; 10.1111/j.1365–2923.2010.03815.x.
- Dochy, F., M. Segers, and D. Sluijsmans. 1999. "The use of Self-, Peer and Co-Assessment in Higher Education: A Review." *Studies in Higher Education* 24.3: 331–350.
- DuBois, J. M. and J. Burkemper. 2002. "Ethics Education in U.S. Medical Schools: A Study of Syllabi." *Academic Medicine : Journal of the Association of American Medical Colleges* 77.5: 432–437.
- Emory University. "University Vision Statement." Office of the President, Emory University, http://www.emory.edu/president/governance/vision_statement.html>
- Fard, N. N., F. Asghari, and A. Mirzazadeh. 2010. "Ethical Issues Confronted by Medical Students during Clinical Rotations." *Medical Education* 44.7: 723–730. doi:10.1111/j.1365–2923.2010.03671.x.

Farnan, J. M., L. Snyder Sulmasy, B. K. Worster, H. J. Chaudhry, J. A. Rhyne, V. M. Arora, American College of Physicians Ethics, Professionalism and Human Rights Committee, American College of Physicians Council of Associates, and Federation of State Medical Boards Special Committee on Ethics and Professionalism*. 2013. "Online Medical Professionalism: Patient and Public Relationships: Policy Statement from the American College of Physicians and the Federation of State Medical Boards." *Annals of Internal Medicine* 158.8: 620–627. doi:10.7326/0003–4819–158–8–201304160–00100; 10.7326/0003–4819–158–8–201304160–00100.

- Fernandes, A. K., N. Borges, and H. Rodabaugh. 2012. "Measuring Cognitive Outcomes in a Pre-Clinical Bioethics Course." *Perspectives on Medical Education* 1.2: 92–97. doi:10.1007/s40037–012–0014–3.
- Fischer, M. A., H. L. Haley, C. L. Saarinen, and K. C. Chretien. 2011. "Comparison of Blogged and Written Reflections in Two Medicine Clerkships." *Medical Education* 45.2: 166–175. doi:10.1111/j.1365–2923.2010.03814.x; 10.1111/j.1365–2923.2010.03814.x.
- Foreman, J. S., L. Hark, and H. M. DeLisser. 2012. "Case Writing as a Vehicle for Promoting Cultural Competency: A Retrospective, Descriptive Qualitative Analysis." *Journal of the National Medical Association* 104.1–2: 29–37.
- Garrison, D., J. M. Lyness, J. B. Frank, and R. M. Epstein. 2011. "Qualitative Analysis of Medical Student Impressions of a Narrative Exercise in the Third-Year Psychiatry Clerkship." *Academic Medicine : Journal of the Association of American Medical Colleges* 86.1: 85–89. doi:10.1097/ACM.0b013e3181ff7a63; 10.1097/ACM.0b013e3181ff7a63.
- Geller, G. 2013. "Tolerance for Ambiguity: An Ethics-Based Criterion for Medical Student Selection." *Academic Medicine : Journal of the Association of American Medical Colleges* 88.5: 581–584. doi:10.1097/ACM.0b013e31828a4b8e; 10.1097/ACM.0b013e31828a4b8e.
- Goldman, E. F., S. S. Swayze, S. E. Swinehart, and W. S. Schroth. 2012. "Effecting Curricular Change through Comprehensive Course Assessment: Using Structure and Process to Change Outcomes." *Academic Medicine : Journal of the Association of American Medical Colleges* 87.3: 300–307. doi:10.1097/ACM.0b013e318244739c; 10.1097/ACM.0b013e318244739c.
- Horner, Jennifer and Fred D. Minifie. 2011. "Research Ethics I: Responsible Conduct of Research (RCR)--Historical and Contemporary Issues Pertaining to Human and Animal Experimentation." *Journal of Speech, Language, and Hearing Research* 54.1: S303-S329. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ913713 &site=ehost-live; http://dx.doi.org/10.1044/1092-4388(2010/09-0265)>

- Jawaid, M., Z. Masood, S. N. Alam, and S. A. Jawaid. 2011. "An Analysis of Interactive Hands-on Workshops on Medical Writing." *JPMA.the Journal of the Pakistan Medical Association* 61.1: 66–70.
- Johnson, J. F., Z. Bagdasarov, S. Connelly, L. Harkrider, L. D. Devenport, M. D. Mumford, and C. E. Thiel. 2012. "Case-Based Ethics Education: The Impact of Cause Complexity and Outcome Favorability on Ethicality." *Journal of Empirical Research on Human Research Ethics: JERHRE* 7.3: 63–77. doi:10.1525/jer.2012.7.3.63; 10.1525/jer.2012.7.3.63.
- Kittmer, T., J. Hoogenes, J. Pemberton, and B. H. Cameron. 2013. "Exploring the Hidden Curriculum: A Qualitative Analysis of Clerks' Reflections on Professionalism in Surgical Clerkship." *American Journal of Surgery* 205.4: 426–433. doi:10.1016/j.amjsurg. 2012.12.001; 10.1016/j.amjsurg.2012.12.001.
- Lahey, T. 2012. "Perspective: A Proposed Medical School Curriculum to Help Students Recognize and Resolve Ethical Issues of Global Health Outreach Work." *Academic Medicine: Journal of the Association of American Medical Colleges* 87.2: 210–215. doi:10.1097/ACM.0b013e31823f3fb1; 10.1097/ACM.0b013e31823f3fb1.
- Lehmann, L. S., W. S. Kasoff, P. Koch, and D. D. Federman. 2004. "A Survey of Medical Ethics Education at U.S. and Canadian Medical Schools." *Academic Medicine : Journal of the Association of American Medical Colleges* 79.7: 682–689.
- Lin, Y. K., W. C. Lee, L. C. Kuo, Y. C. Cheng, C. J. Lin, H. L. Lin, C. W. Chen, and T. Y. Lin. 2013. "Building an Ethical Environment Improves Patient Privacy and Satisfaction in the Crowded Emergency Department: A Quasi-Experimental Study." *BMC Medical Ethics* 14: 8–6939–14–8. doi:10.1186/1472–6939–14–8; 10.1186/1472–6939–14–8.
- Lohfeld, L., J. Goldie, L. Schwartz, K. Eva, P. Cotton, J. Morrison, K. Kulamakan, G. Norman, and T. Wood. 2012. "Testing the Validity of a Scenario-Based Questionnaire to Assess the Ethical Sensitivity of Undergraduate Medical Students." *Medical Teacher* 34.8: 635–642. doi:10.3109/0142159X.2012.687845; 10.3109/0142159X.2012.687845.
- Lynoe, N., R. Lofmark, and H. O. Thulesius. 2008. "Teaching Medical Ethics: What is the Impact of Role Models? some Experiences from Swedish Medical Schools." *Journal of Medical Ethics* 34.4: 315–316. doi:10.1136/jme.2007.021147; 10.1136/jme.2007.021147.
- McCammon, S. D. and H. Brody. 2012. "How Virtue Ethics Informs Medical Professionalism." *HEC Forum : An Interdisciplinary Journal on Hospitals' Ethical and Legal Issues* 24.4: 257–272. doi:10.1007/s10730–012–9202–0; 10.1007/s10730–012–9202–0.

McDougall, R. 2009. "Combating Junior Doctors' "4am Logic": A Challenge for Medical Ethics Education." *Journal of Medical Ethics* 35.3: 203–206. doi:10.1136/jme.2008.026609; 10.1136/jme.2008.026609.

- Mijaljica, G. 2013. "Medical Ethics, Bioethics and Research Ethics Education Perspectives in South East Europe in Graduate Medical Education." *Science and Engineering Ethics*. doi:10.1007/s11948-013-9432-9.
- Milligan, E. and E. Woodley. 2009. "Creative Expressive Encounters in Health Ethics Education: Teaching Ethics as Relational Engagement." *Teaching and Learning in Medicine* 21.2: 131–139. doi:10.1080/10401330902791248; 10.1080/10401330902791248.
- Mumford, Michael D., Lynn D. Devenport, Ryan P. Brown, Shane Connelly, Stephen T. Murphy, Jason H. Hill, and Alison L. Antes. 2006. "ARTICLES: Validation of Ethical Decision Making Measures: Evidence for a New Set of Measures." *Ethics & Behavior* 16.4: 319–345. doi:10.1207/s15327019eb1604_4. http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=23590283&site=ehost-live
- National Institutes of Health. "Update on the Requirement for Instruction in the Responsible Conduct of Research." Department of Health and Human Services, last modified April 19, http://grants.nih.gov/grants/guide/notice-files/not-od-10-019.html
- Opel, D. J. and M. E. Olson. 2012. "Bioethics Education and Resources." *Pediatrics in Review / American Academy of Pediatrics* 33.8: 370–373. doi:10.1542/pir.33–8–370; 10.1542/pir.33–8–370.
- Plack, M. M., M. Driscoll, M. Marquez, L. Cuppernull, J. Maring, and L. Greenberg. 2007. "Assessing Reflective Writing on a Pediatric Clerkship by using a Modified Bloom's Taxonomy." *Ambulatory Pediatrics: The Official Journal of the Ambulatory Pediatric Association* 7.4: 285–291. doi:10.1016/j.ambp.2007.04.006.
- Quinn, C., T. Kinnison, and S. A. May. 2012. "Care and Justice Orientations to Moral Decision Making in Veterinary Students." *The Veterinary Record* 171.18: 446. doi:10.1136/vr.101003; 10.1136/vr.101003.
- Sanders, Scott and Kay Hoffman. 2010. "Ethics Education in Social Work: Comparing Outcomes of Graduate Social Work Students." *Journal of Social Work Education* 46.1: 7–22. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ882326 &site=ehost-live>; http://www.cswe.org/Publications/JournalofSocialWorkEducation/MostRecentIssue.aspx>

- Satterwhite, Robert C., William M. Satterwhite III, and Cam Enarson. 2000. "An Ethical Paradox: The Effect of Unethical Conduct on Medical Students' Values." *Journal of Medical Ethics* 26: 462–465.
- Schonfeld, Toby, Erin L. Dahlke, and John M. Longo. 2011. "Pre-Test/Post-Test Results from an Online Ethics Course: Qualitative Assessment of Student Learning." *Teaching Philosophy* 34.3: 273–290.
- Silverman, H. J., J. Dagenais, E. Gordon-Lipkin, L. Caputo, M. W. Christian, B. W. Maidment 3rd, A. Binstock, A. Oyalowo, and M. Moni. 2013. "Perceived Comfort Level of Medical Students and Residents in Handling Clinical Ethics Issues." *Journal of Medical Ethics* 39.1: 55–58. doi:10.1136/medethics–2011–100300; 10.1136/medethics–2011–100300.
- Smith, Sherilyn, Kelly Fryer-Edwards, Douglas S. Diekema, and Clarence H. Braddock. 2004. "Finding Effective Strategies for Teaching Ethics: A Comparison Trial of Two Interventions." *Academic Medicine* 79.3: 265–271.
- Song, P. and R. Stewart. 2012. "Reflective Writing in Medical Education." *Medical Teacher* 34.11: 955–956. doi:10.3109/0142159X.2012.716552; 10.3109/0142159X.2012.716552.
- Steneck, Nicholas H. 2007. *Introduction to the Responsible Conduct of Research*. Updated Edition ed. Washington, DC: Office of Research Integrity.
- Stephens, M. B., B. V. Reamy, D. Anderson, C. Olsen, P. A. Hemmer, S. J. Durning, and S. Auster. 2012. "Writing, Self-Reflection, and Medical School Performance: The Human Context of Health Care." *Military Medicine* 177.9 (Suppl): 26–30.
- Thiel, C. E., S. Connelly, L. Harkrider, L. D. Devenport, Z. Bagdasarov, J. F. Johnson, and M. D. Mumford. 2011. "Case-Based Knowledge and Ethics Education: Improving Learning and Transfer through Emotionally Rich Cases." *Science and Engineering Ethics*. doi:10.1007/s11948-011-9318-7.
- Tractenberg, Rochelle E. and Kevin T. FitzGerald. 2012. "A Mastery Rubric for the Design and Evaluation of an Institutional Curriculum in the Responsible Conduct of Research." *Assessment & Evaluation in Higher Education* 37.8: 1003–1021. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ990412&site=ehost-live; http://dx.doi.org/10.1080/02602938.2011.596923>
- Tyler, Ralph W. 1970. *Basic Principles of Curriculum and Instruction*. Chicago: The University of Chicago Press.

Wald, H. S. and S. P. Reis. 2010. "Beyond the Margins: Reflective Writing and Development of Reflective Capacity in Medical Education." *Journal of General Internal Medicine* 25.7: 746–749. doi:10.1007/s11606–010–1347–4; 10.1007/s11606–010–1347–4.

- Wear, D., J. Zarconi, R. Garden, and T. Jones. 2012. "Reflection in/and Writing: Pedagogy and Practice in Medical Education." *Academic Medicine : Journal of the Association of American Medical Colleges* 87.5: 603–609. doi:10.1097/ACM.0b013e31824d22e9; 10.1097/ACM.0b013e31824d22e9.
- Weisblat, Gina and Christine Sell. 2012. "An Exemplar in Mentoring and Professional Development: Teaching Graduate Students Transferable Skills Beyond the Discipline." *Journal of Research Administration* 43.1: 60–84. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ976742&site=ehost-live;
- Wester, Kelly L. 2007. "Teaching Research Integrity in the Field of Counseling." *Counselor Education and Supervision* 46.3: 199–211. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ756140&site=ehost-live>; http://aca.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,4,6;journal,12,42;linkingpublicationresults,1:112972,1>
- _____. 2010. "Psychological Climate, Stress, and Research Integrity among Research Counselor Educators: A Preliminary Study." *Counselor Education and Supervision* 50.1: 39–55.
 - http://search.ebscohost.com/login.aspx?direct=true&db=ericAN=EJ900491&site=ehost-live>; http://aca.metapress.com/openurl.asp?genre=article&issn=0011-0035&volume=50&issue=1&spage=39>