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Medical Ethics Education in a Problem-Based Learning Curriculum

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HISTORY OF THE ETHICS IN HEALTH CARE PROJECT

In the late 1980's, a decision was made at the John A. Burns School of Medicine of the University of Hawaii to switch to problem-based learning (PBL). Drawing heavily upon materials developed at MacMaster University in Ontario, a rapid change was undertaken. The first PBL class graduated in 1993.

While the technical content of a PBL curriculum is not unlike that of traditional medical education, there are four broad objectives that lead to prominent differences in format. The first objective of the PBL curriculum is to reduce the information overload. The core of medical knowledge -- what every physician needs to know -- has never been defined. And even if it could be, its boundaries would change before it could be mastered. Thus the new curriculum bases the need to know on the demands of clinical problems. The second objective is to organize the curriculum into interdepartmental modules. Instead of a separate medical ethics course, ethical issues are woven into the fabric of clinical problems. The third objective is to incorporate nontechnical goals in the training process. These include ethical, humanistic and behavioral goals. The fourth and last objective is to emphasize self-directed learning. Students must acquire the skills to become independent learners capable of lifelong learning.

In practice, this means that the first two years of medical school are organized around small group tutorials instead of large lectures. In each tutorial, students and faculty work through a carefully drafted "health care problem" (HCP), with faculty serving as facilitators and not as lecturers. For three hours per week, students work through the HCP, page by page, The HCP mirrors the clinician's experience of a patient: Page 1 will describe initial presentation; page 2 additional history and so on. At each step students share whatever knowledge they have, conjecture about what might be going on, deliberate about what to do, and generate a list of "learning issues" on the blackboard: questions they need to research and answer in order to understand and

treat the patient's problem. At the end of the session, the learning issues are distributed to students in the tutorial who then fan out to research their questions and report back to the group at the next session. In addition to readings, students have access to expert faculty in their research. The tutor's job is to facilitate discussion, provide a role model of critical thinking and self-examination, and ensure that essential learning issues are addressed. The students also have weekly clinical skills sessions and a weekly 90-minute colloquium where resource faculty discuss certain learning issues in greater depth with the entire class.

In the old curriculum, a two-week medical ethics lecture-discussion course was required of all students in the second year. With the transition to PBL, it became unclear how ethics was going to be integrated into the new curriculum. In 1991 The Queen's Medical Center in Honolulu provided funds for the development of a medical ethics strand for the new curriculum. A team consisting of a physician and a philosopher had responsibility for the work. Within a year, a set of medical ethics objectives was submitted to the central curriculum committee for the MD program. Now, in 1995, the ethics strand is in place as a systematic and comprehensive approach to medical ethics, seamlessly integrated into the four-year problem-based curriculum.

It is useful at the outset to note that, broadly, ethics courses can be **"problem driven"** or **"theory driven."** In a problem driven course, students are confronted with dilemmas they are likely to encounter in the course of professional practice. The felt need to know what to do in the face of such problems creates the motivation to master the knowledge that will be required, both practical and theoretical. On the other hand, theory-driven courses are favored by many academic philosophers. These endeavor to provide the student with some theoretical knowledge-base first. Only then is the student allowed to apply that knowledge to problems.

It appears that the problem-driven approach is vastly preferable, especially in professional schools. In the first place, there is no consensus in the philosophical literature about which ethical theories are most worthy of application in professional contexts and no shared confidence that any of these accounts will, even in general, pick out professionally validated courses of action when applied. But secondly, and even more important, the attempt to instruct beginning professional students in ethical theory is commonly met with alienated attention, as there are often no clear applications of these accounts at the levels of abstraction where they are initially taught. Finally, since any review of ethical theory has to cover several competing accounts, and since the competing accounts often will point ultimately in the direction of contradictory courses of action, expertise in professional ethics can come to look suspiciously like a disingenuous skill in rationalization: "If you take a Natural Law approach, you can justify keeping the patient alive but if you make this act-utilitarian move, you can justify letting

the patient die." Problem-based learning is essentially problem-driven. There may be no better way to teach professional ethics.

This brief paper provides an overview of the project's outcome with emphasis on the strategies that have informed our approach. Four elements of the curriculum are described: the questionnaire, the core value exercise, the core value application exercise, and the HCP modifications and supplements.

THE QUESTIONNAIRE

The Questionnaire is administered to all members of an entering class during orientation, before they have had any exposure to medical ethics. They can take it at home but must return it within a few days. The instrument consists of a consent form, a sheet for demographic data and a battery of 13 medical ethics cases. Each case describes a problematic situation and various courses of action from which the student must pick the one that best represents what a responsible physician should do under those circumstances. The cases commonly mention standard strategies for finessing the dilemma but these will have already been attempted and have failed. The fact-situations therefore require bottom-line decisions. To keep the focus on ethics, students are advised that none of the listed courses of action are contrary to law in the jurisdiction within which the case occurs. They are also told that they MUST answer each question.

The primary purpose of the questionnaire is to introduce students to the subject matter of medical ethics. In choosing answers, students imaginatively place themselves in the physician's role, measuring themselves against the demands of the case. The challenge of the questionnaire gets students' attention and the dramatic immediacy generates a felt need for a better understanding of professional responsibility. Although students are admonished not to discuss the questionnaire prior to completion, there is considerable discussion subsequently.

A secondary purpose of the questionnaire is to evaluate the curriculum. A reasonable way to determine effectiveness is to see if students' choices at the end of instruction are a better reflection of informed professional opinion than they were prior to instruction. A baseline measurement is therefore essential. To this end, about half of the cases -- the "consensus cases" -- are ones for which courses of action can be shown to be professionally favored by reference to official professional standards and to the medical ethics literature. The remaining cases -- the "knife-edge cases" -- are ones in which informed opinion is either split or unknown. We have administered post-tests at various stages of the curriculum and have compared the responses students have given to the consensus cases with those given after the intervention. A brief description of the results of data analysis is set out later on.

THE CORE VALUE EXERCISE

This exercise, which takes about 90 minutes, is done once during the first ethics colloquium, usually several weeks after the completion of the questionnaire.

It is commonplace that if people are not asking the same questions, they will not arrive at the same answers. It may be that the primary reason that doctors have difficulty reaching consensus on questions of professional ethics is that, in general, systematic discussions of professional ethics are commonly confused with four other types of conversation. Reality does not come pre-labeled. When problematic situations arise, physicians can choose to discuss legal obligations, institutional policies, their personal morality, or their personal values. It is our position that discussions of professional ethics differ importantly from all of these. Understanding and bracketing these four perspectives can help to mark off the intellectual space within which physicians can fruitfully reflect on questions of professional responsibility. In Hawaii, with its striking cultural and moral diversity, these ground rules are essential.

Law and Institutional Policy: Law and institutional policy involve standards that are typically imposed externally upon members of the profession. Lawyers, judges and legislators are commonly authoritative sources of information regarding legal obligations. And the hospital's handbook or its administrators are commonly authoritative regarding institutional duties. While it is wise to determine how these rules apply, the duties that such external norms create are not the same as professional obligations. It is often said that the law creates a minimum ethical standard, but this is not so. A court, for example, can order a journalist to disclose the identity of a confidential source. Yet reporters typically go to jail rather than violate professional confidentiality. In such a case, a clear professional obligation conflicts with an equally clear legal obligation. Therefore the two cannot be the same. If legal or institutional rules are confused with professional obligations (as they often are), physicians will be unable to appreciate the tensions that can arise between the two. But if the profession is alive to the possibility that externally imposed rules can demand unprofessional conduct, the organized profession can work to change the rules so that conscientious practitioners won't have to face tragic choices between acting unprofessionally, and violating laws or institutional policies. As important as these rules are, they are not the same as ethical standards.

Personal Morality: A "morality" is a set of beliefs about one's obligations. There are many such sets of beliefs, many moralities: the morality of the ancient Romans and the morality of George Bush for example. For many, personal moralities are absorbed in childhood: we grasp the difference between right and wrong, the good guys and the bad guys. We become aware of our moral beliefs, typically, when we come into contact with others whose moral beliefs differ from our own.

There are still parts of the world in which all members of a community are participants in a common morality. But pluralism is now a permanent part of the modern social order, and nowhere more plainly than in Hawaii. As important as our moralities are in social life, they are of limited use to professionals. There are situations in which personal morality can conflict with professional ethics. For example, a Jehovah's Witness physician will be conscientiously opposed to blood transfusions. If she were the only one on duty at a time when a patient needed to be transfused, then a choice would have to be made between being a good Jehovah's Witness and being a good doctor. Therefore clarity about one's personal morality is not the same as responsible clarity about medical ethics. This is not to suggest that physicians need not reflect on their personal morality. It is only to show that personal morality is not the same as professional ethics.

Personal Values: Values are commonly appealed to as part of an explanation of personal conduct. It is always reasonable to ask of an action: What <u>good</u> is it intended to promote? While some may wear shoes to avoid hurting their feet (embracing the value of being pain-free) others may feel their feet simply look better in shoes (embracing aesthetic values). We cannot appeal to personal values to inquire about what physicians in general ought to do, since "medicine" has no personal values: only individual physicians do. When a physician must decide whether to call a code on a patient, personal values should have nothing to do with the question. Indeed a part of professionalism involves knowing how and when to set personal values aside. While medical students have much to gain by becoming clear about their personal values, it must be remembered that this clarity is not the same as responsible certainty about professional ethics.

To summarize the argument so far, discussion about professional obligations in medicine is not the same as discussion about legal and institutional obligations, personal morality, or personal values. If responsible consensus is to be achieved in the profession, it is necessary for physicians to learn to bracket, to some degree, their personal moral and value commitments and to set aside, temporarily, consideration of legal or institutional rules and policies.

Core Professional Values and Professional Ethics: Professional ethics involves disciplined discussion about the obligations of professionals. Such a discussion can begin with a distinction between personal values, already discussed, and what can be called "core professional values." A physician can prefer (1) chocolate ice cream to vanilla and (2) confidentiality to universal candor. But while the preference for chocolate is a merely personal, the preference for confidentiality is a value doctors ought to possess. The distinction between personal values and "core professional values" is at the heart of the approach taken within the curriculum. To appreciate the ethical claims of their professionalism, physicians must learn to set aside personal values and morality, set aside what the legal system and their employers want them to care about,

and take up instead the question of what the responsible physician ought to care about, the purposes which each medical professional should have in common with colleagues. In discussing the professionally favored resolution of ethically problematic cases (see the description of the core values application exercise below) physicians can ask -- together -- how medicine's core professional values ought to be respected in the circumstances of practice.

The "core value exercise" begins with a brief talk about professional ethics that has been summarized above. The class is divided into small groups of about 6-8. The participants are asked to generate a core value list. Each person in the small group can nominate a candidate core value but these may be added to a group's list only if each member can enthusiastically endorse it as expressive of an important ethical commitment of medicine. Every group member has a veto.

After the small group work is completed, a single group is asked to set forth a value having strong consensus within that group. This is written on the blackboard. The other groups are then asked for any of their core values that roughly correspond to the one on the board. These are entered below the first. When all of the variations on the first are entered, a second group is called upon to list a second core value unlike those in the first group. Once again variations are solicited from the remaining groups. This process is continued until all values are on the board. It is usually a surprise to students to become aware of how much consensus there is within the room.

It is sometimes necessary to poll the class if it appears that values endorsed by a small group might not have unanimous and enthusiastic support from the whole class. It is often a problem that students will identify a means of achieving some good (continuing education often comes up) instead of the good itself (competency or, better yet, the good of the patient). The means can be entered as such on the class list.

No claim is made in class that these lists are complete or ethically binding. The exercise is effective, especially if coupled with the core value application exercises to be described below, in identifying and, over time, developing matured values that are, as it were, "celebratable" by members of the profession. The manner in which the list is developed ensures shared ownership, at least by those participating in the process. As such, the list has far more value as a pedagogical tool than any list an instructor might ask them to take seriously: Reinforcement is collegial rather than instructional. But notwithstanding this ownership, the values do not have binding ethical force unless, among other conditions, they also represent what reasonable persons would want physicians to care about and unless the programs that educate physicians conscientiously equip students with the knowledge and skills they need to secure and further those values in the course of professional practice.

The account of professional ethics that is presupposed here is predicated on the legal monopoly that professions enjoy with respect to the distribution of their specialized services. Accompanying the legal privileges that doctors have are reciprocal responsibilities. Licensed physicians have the exclusive right to practice in part because they are believed to be reliably committed to certain significant social values. A representative core value list developed by a medical school class is attached as Appendix A. Within a few days of the exercise, copies of the class core value list are distributed to all students.

CORE VALUE APPLICATION EXERCISE

The core value application exercise is repeated at colloquia about 6 times during the four-year course of study. After one or two sessions, the exercise becomes a routine drill for students, requiring very little preparation. Taking about 90 minutes, it is prefaced by a brief introduction reviewing the basic concepts described above and by distribution of the latest version of the class core value list. The 60 students are divided into four groups, each receiving a medical ethics case related to those the other three groups are working with. In about 15 minutes, each group tries to reach consensus on how the core values should be furthered and respected in the circumstances of their assigned case. They are not to appeal to their personal moralities, to law, to institutional policies or to their personal values. New core values can be added to the list and old ones deleted or clarified provided there is enthusiastic consensus.

After the small group work, each case is read aloud and the package of four cases distributed to everyone. Following the reading of each case, a student reporter presents the results of the small-group work to the whole class, setting out the favored practical response to the problem and the core values that support that choice. In practice, all ethical dilemmas are a consequence of two or more conflicting core values -- in which case prioritization is called for -- or ambiguity in a core value -- in which case disambiguation is called for. Questions may be put to the group for clarification, but there is no discussion until all four presentations are complete. At that point there is an opportunity for comments and criticisms, usually involving visiting experts who, except for requests for clarification, will have been silent until this point. Any agreed-upon changes in the class core value list will be reflected in the handouts at the next ethics colloquium. Topics for ethics colloquia have included information management, pediatrics, geriatrics, death and dying, scarce resource problems and nurse-physician conflict.

What has been striking is the degree to which (1) consensus is reached by students in the context of this process and (2) how often that consensus mirrors consensus in the profession and in the literature, when it exists. Because of this, very little traditional instruction is required. More important, there is evidence as well of an emerging alignment of the class around common values that are choiceworthy from a

societal point of view and of cooperative participation in a common set of strategies for reaching agreement on ethical questions. The pedagogy described here aims at the development of ethical competence in the collectivity even while equipping the individual student with critical thinking skills that are applicable to ethical problems and that are founded on the core values of the profession.

MODIFICATIONS OF AND SUPPLEMENTS TO THE HEALTH CARE PROBLEMS

The HCPs that are discussed in the tutorials are an appropriate vehicle for ethics instruction. All cases in reliably regular use have been reviewed for actual and potential ethical content. Many of these have been rewritten, taking care to keep technical elements intact. For example, where a bone marrow transplant was indicated for an juvenile identical twin with leukemia, we inserted a refusal to permit extraction by the donor twin. Though the donor twin relents on the next page, permitting the bone marrow extraction, a learning issue -- Under what circumstances should such a refusal by a minor be honored? -- makes it to the blackboard and gets assigned to a student who will research it and report back to the group next time. A reading list with relevant citations is distributed by the tutor at the end of the session and, at least for the materials pertinent to the ethical issue, these are readily available in the learning resource center. Note that this approach is largely self-instructional. It is not necessary for tutors to be competent in ethics for the process to be effective. Nevertheless there are condensed overviews of the issues that have been prepared for the tutors. (These are sometimes handed out to the students at the end of discussion of the HCP.) These modifications and supplements of the HCPs mirror the presentation of ethical issues in the context of clinical practice and, more important, insure systematic contact by students with the medical ethics literature.

EVALUATION

A complete description of the evaluation of this curriculum is beyond the scope of this paper, but a few highlights will be described. The "consensus case" items of the questionnaire were used to develop a consensus scale (CSS) to monitor the various stages of curriculum implementation. In one study, a group of first year students who received the questionnaire prior to the core values exercise was compared with a second group who received it several months afterwards. Scores on the CSS for both groups were analyzed using a t-test. Scores for the group who had the core values exercise first were significantly higher ($p<0.035$). In fact, this 90-minute exercise raised scores as much as a full semester medical ethics course taken as an undergraduate. In another study, the last non-PBL class was compared with the first PBL class at graduation. The first PBL graduates did not have the core values exercise nor had HCPs had been modified. (The original MacMaster materials did include some coverage.) Results demonstrated that unmodified HCPs without the supplemental

materials were as effective as the lecture-discussion course. For women, PBL was superior ($p<0.008$).

The most promising findings are in the score of the class we are following that has had the core value and the core value application exercises. Here students at the end of two years perform significantly better than the senior PBL females previously mentioned ($p<0.025$). We continue to monitor the curriculum with this scale as well as a measure of moral development (Rest's Defining Issues Test). The data to date is cross-sectional but in May of 1995 we will have the first longitudinal data to analyze.

CONCLUSION

So far, there has been no difficulty arranging for entering students to complete the questionnaire, no shortage of colloquia for the core value and core value application exercises, and no problems inserting a broad range of ethical learning issues in the HCPs. There may be some question about our long-term ability to monitor the effectiveness of the curriculum, to keep it up to date, and to adapt it to ongoing changes in the HCPs.

We are mindful as well of the growing external pressures on medicine -- managed care and other cost-containment constraints -- that can erode professionalism in the long run. In addition to being part of a demonstrably effective teaching strategy, it may be that the attention we are able to devote to consideration of the value dimension of medical practice will become increasingly important in the future as the profession strives to understand and respond to these pressures.

Appendix A:

Core Value List: Medical School Class of 1998

QUESTION: What should responsible physicians care about? **OR** What are **the deepest and most important ethical commitments of medicine?**"

ENDS:

Do no harm, intend no harm, no net harm.

Alleviate suffering, unnecessary suffering

Promote health and well-being of patient

Promote health of public

Respect patient's rights -- basic human rights -- as a patient; respect patient's wishes; promote patient participation in decision-making; maintain patient dignity; respectful attitude toward all patients.

Non-discrimination

Integrity, responsibility for decisions.

Doctor-patient trust: respecting patient's rights, maintaining patient dignity, confidentiality (means)

Empathy (possible core value)

MEANS:

Maintaining competence, continuing education

Empathy

Confidentiality, respecting privacy