Survey of medical ethics in US medical schools: a descriptive study

LAWRENCE I. SILVERBERG, DO

In light of the fact that the incidence of revocation of physician licenses is on the rise, a survey was sent to 118 allopathic and 16 osteopathic medical schools in the United States to assist in appraising the current resources of US medical schools training in bioethics. The author contends that, in view of the statistics on increasing actions against postgraduate physicians, the time has come to determine what constitutes an effective experience for our students. It is hoped that the details of this investigative process will give educators and researchers insight into the current state of medical school ethics curriculum and increase awareness of the need to address the problems.

(Key words: medical ethics, medical education)

The incidence of revocation of physician licenses is increasing. The Federation of State Medical Boards reported that in 1997 the loss of license or license privileges accounted for 44% of total adverse disciplinary actions and has increased since 1996. Of the 4467 total actions taken, 3728 were prejudicial to physicians. The five most common disciplinary actions were related to quality of care issues, sexual misconduct, alcohol/substance abuse, inappropriate prescribing of controlled substances, and insurance fraud.[1] Disciplinary actions against physicians for sex-related offenses are increasing and are relatively severe.[2] Why this failure in professionalism?

In view of the statistics on increasing actions against postgraduate physicians, now is the time to determine what constitutes an effective experience for our students. At first glance, the teaching of medical ethics does not appear to have had a positive impact on the increasing actions against postgraduate physicians in the five areas listed previously. Education is only a piece of the puzzle. A true cause and effect awaits future study to establish a connection. This descriptive study explores medical ethics as taught in schools that participated in this survey.

Medical students face professional ethical dilemmas beginning as early as the first year of medical school. Their education is expected to enhance a positive indoctrination into the medical profession.[3] Medical education must prepare students to recognize and appropriately manage these commonly encountered situations.[4] Professionalism—the ability to subordinate self-interests, adhere to high ethical and moral standards, respond to societal needs, and evince core humanistic values—can be measured within the environment of medical education and residency training.[5]

Many physicians have found that the traditional approach to learning bioethics fails to account for important aspects of their moral experience in practice.[6] Is medical education meeting this challenge? Are physicians receiving preventive training? Is current training pertinent and sufficient? What is the most effective curriculum for altering normative frames of reference with medical students to produce a positive outcome?

This study was performed to appraise the current resources of US medical schools training in bioethics. This investigation of who performs the training, the amount of time devoted to medical ethics, and what the composition of their curriculum is may help answer some of these questions. A search of the National Library of Medicine and the archives of the American Association of Medical Colleges found no current information regarding such an assessment.

Method

A census survey was sent to 118 allopathic and 16 osteopathic medical schools in the United States. The following four questions were asked:

■ Does your medical school have a formal (required) course in medical ethics?

■ Approximately how many hours are devoted to medical ethics, over a 4-year period, at your school?

■ Medical ethics course(s) are taught by

☐ physician
☐ PhD
☐ ethicist
☐ Master of Social Work
☐ nurse
☐ attorney
☐ clergy

■ Briefly describe the content of your medical ethics program, if one exists.

The last question was sorted and categorized. A master course list was then derived from the responses received. Courses with closely related headings were collapsed into similar listings for purposes of general classification. For example, end-of-life courses were included under death and dying; duty to provide care was included in physician duty. Psychiatric listings, such as child abuse and neglect, were excluded from the results. The practical and informative category included the course headings and descriptions that indicated mostly facts were given (lectures). Courses that promoted reasoning were placed in the processing category (skills). Courses using the term *Introduction* were generally placed in the informative category

Dr Silverberg is a private practitioner in West Friendship, Md.

Correspondence to Lawrence I. Silverberg, DO, Routes 32 & 144, PO Box 257, West Friendship, MD 21794.

Table
Categorization of Curriculum Content

Skills categories and courses	Frequency
■ **Behavioral and Communication**	
☐ Hidden Agendas	
☐ Coming to Terms With Paternalism	2
☐ Compassion and Empathy	3
☐ Physician/Patient Relationship	0
☐ Cultural Perspectives	4
☐ Medical Humanities	2
☐ Compliance/Adherence	2
☐ Behavior in the Life Cycle	
Total	**35**
■ **Practical and Informative**	
☐ Advanced Directive/Living Will	8
☐ Professional Responsibility (Professionalism)	8
☐ Practicing Medicine in an Institution	4
☐ A History of Physician Ethics (Includes Theory)	2
☐ Dying and Death	9
☐ Problems in Managed Care	8
☐ Allocation of Resources	8
☐ Ethics of Being a Physician	9
☐ Economic Constraints	2
☐ Hippocratic Oath	
☐ Vegetative State	
☐ Eugenics	3
☐ Competence (Medical)	5
☐ Reproductive Technology/Surrogate	5
☐ Organ Donation	
☐ Artificial Heart Program	
☐ Third-Party Payers	
☐ Alternative Health Care	
☐ Ethical Terms and Definitions	6
☐ Palliative Care (Hospice)	3
☐ Delivering Bad News	3
☐ Cyberethics	
☐ Teenage Sexuality	4
☐ Clinical Ethics	4
Total	**118**

Table, continued
Categorization of Curriculum Content

Skills categories and courses	Frequency
■ **Legal**	
☐ Ethics and Law	4
☐ Malpractice and Jurisprudence	7
☐ Rights to Privacy and Confidentiality	3
☐ Physicians and Lethal Injections	2
☐ Jehovah's Witnesses	
☐ Protective Custody	
☐ Patients Signing Out AMA (Against Medical Advice)	3
☐ Informed Consent	
☐ Competence (Legal)	7
☐ Brain Death	
☐ Kickbacks	
☐ Physician Duty/Abandonment	4
☐ Refusal of Treatment	2
☐ Liability (Concepts of Harm)	5
☐ Medical Clerks	
Total	**63**
■ **Mental Well-Being**	
☐ Impaired Physician	
☐ Student Well-Being	
Total	**2**
■ **Processing**	
☐ Informed Consent	4
☐ Group Discussions	4
☐ Moral Analysis	5
☐ Conflicts of Interest (Dialogue)	3
☐ Physician as Gatekeeper	2
☐ Communication	3
☐ Standardized Patients	
☐ Ethics Cases Review	23
☐ Ethical Decision Making	2
☐ Critical Thinking	5
☐ Casuistry and Case Analysis	2
☐ Finding Literature and Resources	2
☐ Medical Mistakes	4
☐ Withholding Information from Patients	
Total	**71**

(knowledge). When complete descriptions were supplied, accurate classifications were constructed. Course titles were consolidated into 14 categories, although some courses fit more than one sort. These categories were derived to graph frequency and assist educators in looking further into curriculum issues (*Table 1*).

Results

Of the 118 allopathic and 16 osteopathic medical schools sent a questionnaire, 70 responses were received by mail within 4 weeks. After 6 weeks, an Internet inquiry produced 18 more responses within 4 days. Internet searching provided a wealth of information. One site listed their school's entire syllabus, while hyperlinked sites provided for easy communication. Problems encountered with the Internet included multiple incorrect e-mail addresses listed, schools whose Web address could not be found, outdated sites, and browser incompatibility. In addition, some sites were difficult to navigate and some were under construction.

Of the 88 schools whose responses were received, 69 schools reported a structured (separate and distinct) bioethics program. Ten schools reported an integrated (combined into other traditional courses) curriculum, and seven

Table, continued
Categorization of Curriculum Content

Skills categories and courses	Frequency
■ Public Health	
☐ US DHHS Regulations	
☐ Screening Programs	2
☐ Disabilities	
☐ Access to Health Care	2
☐ AIDS	6
Total	**12**
■ Religious	
☐ Effect of Beliefs on Person and Healing	5
Total	**5**
■ Social	
☐ Social Medicine	3
☐ Rationing	
☐ Patient Dumping	
☐ For-Profit Hospitals	
☐ Not-for-Profit Hospitals	
☐ For-Profit Research	4
☐ Patient Perspectives	3
☐ Medicine and Society	5
☐ Medical Futility	6
☐ Patient Autonomy (Self-Determination)	2
☐ Experimentation	5
☐ Fraud and Misconduct in Science	
☐ Economics	2
☐ Whistle-Blowing	
☐ Deinstitutionalization	2
☐ Obedience and Civil Disobedience	
☐ Sexual Orientation	
Total	**40**
■ Values Clarification	
☐ The Role of Values	6
☐ Virtues and Commitments	2
☐ Truth Telling	
☐ Ethics of Being a Medical Student	6
☐ Patient Advocate	
☐ Active Euthanasia	4
☐ Passive Euthanasia	4
☐ Assisted Suicide	9
☐ Entrepreneurial Medicine	
☐ Conflict of Values	4
☐ Philosophy of Ethics	5
☐ Should Patients Be Learning Tools?	
Total	**54**

Table, continued
Categorization of Curriculum Content

Skills categories and courses	Frequency
■ Neonatal Ethics	
☐ Down Syndrome/Trisomy 21/ Mongolism	
☐ Low-Birthweight Infants	
☐ Duodenal Atresia	
☐ Spina Bifida	
☐ Beginning Life Issues	5
☐ Anencephalic Babies	
Total	**16**
■ Specific Issues	
☐ Nazi Experimentation	3
☐ Nuremburg Code	
☐ Tuskegee Syphilis Study (Bad Blood)	3
☐ Transplantation	4
☐ Artificial Nutrition and Hydration	3
☐ Cloning	
☐ Ethics AIDS Trial in Africa	
☐ Abortion	3
☐ Tube Feeding	
☐ Demand for Drugs (ie, Viagra Antibiotics)	
☐ Karen Ann Quinlan	4
☐ Nancy Cruzan	2
☐ Using Animals in Research	4
☐ Dax's Case Film	
☐ Debate: Dr Kevorkian's Patients	
☐ Louise Brown	
☐ Finkbine Case	
☐ *Roe vs Wade*	
☐ Baby Doe	2
☐ Feminism	6
☐ The God Committee and Dialysis	
☐ Case of Kimberly Bergalis and Dr Acer	
Total	**46**
■ Essay (Stories)	**15**
■ Electives and Clerkship	**21**
■ Integrated Ethics Program	
☐ Basic Science and Clinical	0
☐ Cell Biology	2
☐ Genetics (Diseases)	3
☐ Physiology (Hormone Replacement Therapy)	4
☐ The Patient, Physician, and Society	7
☐ Biochemistry	3
☐ Human Anatomy	3
☐ Histology	2
☐ Pathology	
☐ Preventive Medicine	2
Total	**37**

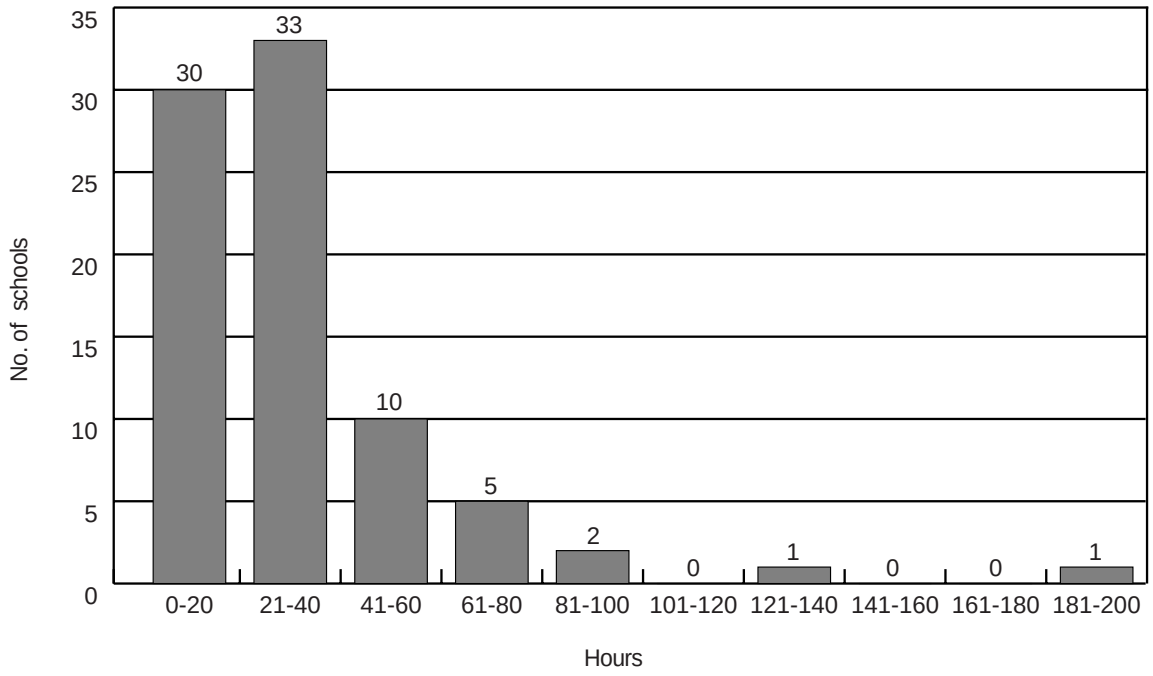

Figure 1. *Distribution of the number of bioethic hours at sampled medical schools (4 years)*

had none. The reported number of hours devoted to bioethics over 4 years ranged from 5 to 200, with a median of 28 hours. Most schools were in the 5- to 40-hour range (*Figure 1*). The majority of schools utilized physicians, PhD's, and ethicists for teaching (*Figure 2*). When categorized, the majority of courses were in the practical and informative category. A course title and frequency graph reveals where the teaching emphasis is placed (*Figure 3*). Given the number of hours reported by each medical school, there was a large variation from the average, as indicated by a high standard deviation (12.68 hours). In that there appears to be no agreement on the qualifications to call oneself an ethicist, the answers received for the third question cannot be considered discreet. Although the categorization sort is limited in value (generated by one researcher), it can serve as a menu for others.

Conclusion

The majority of American medical schools appear to be addressing this important area of medical education. A large variation exists in the number of hours and content dedicated to the teaching of bioethics in US medical schools. With most medical schools allocating less then 40 hours to teaching medical ethics over a 4-year period, students may not be adequately prepared to meet the challenges of clinical practice. Most schools provide a structured, rather than integrated, bioethics curriculum. Programs addressing quality of care issues, sexual misconduct, alcohol/substance abuse, inappropriate prescribing of controlled substances, and insurance fraud need emphasis.[5]

In this study, the information obtained via Internet had a faster return rate than traditional mail. The Internet can serve as an important resource for researchers, teachers, medical school curriculum directors, and all students of bioethics.[7] It can also enhance teaching and facilitate information processing.[8]

The potential for moral growth through the medical school environment and experience is substantial.[9] As Shimon M. Glick pointed out, "Teachers of ethics have obligations not just to teach the subject matter but to help create an academic environment in which well-motivated students have reinforcement of their inherent good qualities. Emphasis should be placed on the ethical aspects of daily medical practice and not just on the dramatic dilemmas raised by modern technology. Attention should be paid to ethical problems faced by the students themselves, preferably at the time when the problems are most on the students' minds. Personal humility on the part of teachers can help set a good example for students to follow."[10]

Decisions in clinical practice are too complex and individualized for preconceived simplistic approaches. Students may be unevenly prepared to recognize obvious ethical dilemmas in the ambulatory setting. At times, medical school may be more abusive than nurturing.[11] Some medical students may resist progressive change. This may be displayed by student dissatisfaction with behavioral and ethical topics, resistance to critical reflection about their personal attitudes and values, and discomfort with "subjective" grading. Also, some basic science faculty may feel they have to sacrifice curriculum time to make room for these new programs.[12]

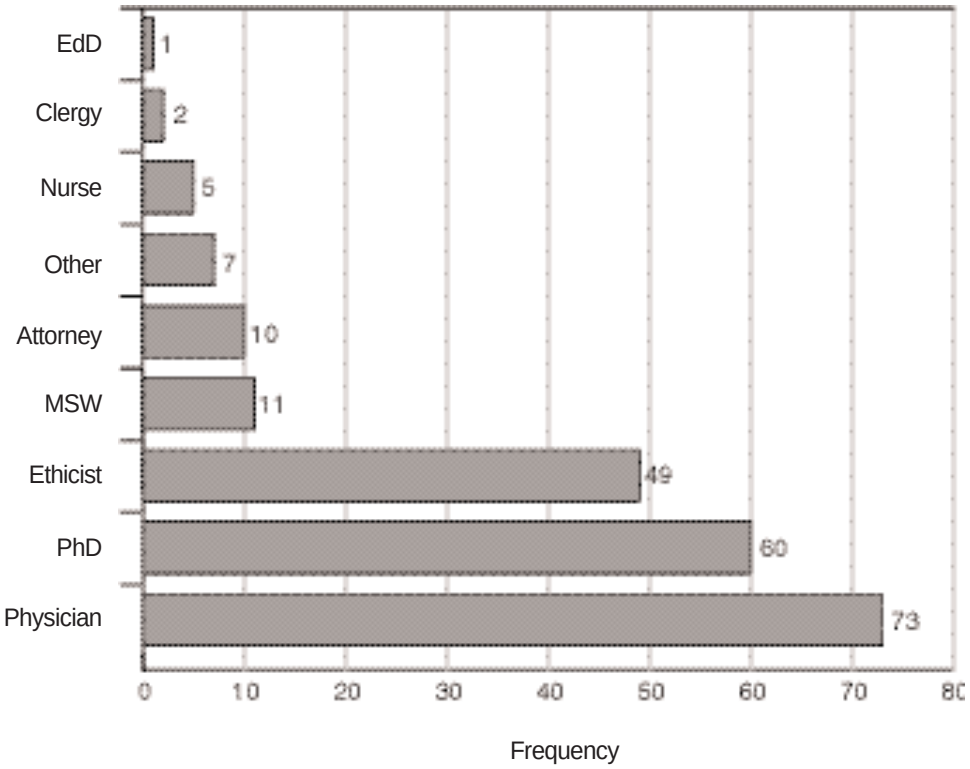

Figure 2. *Professional educational background*

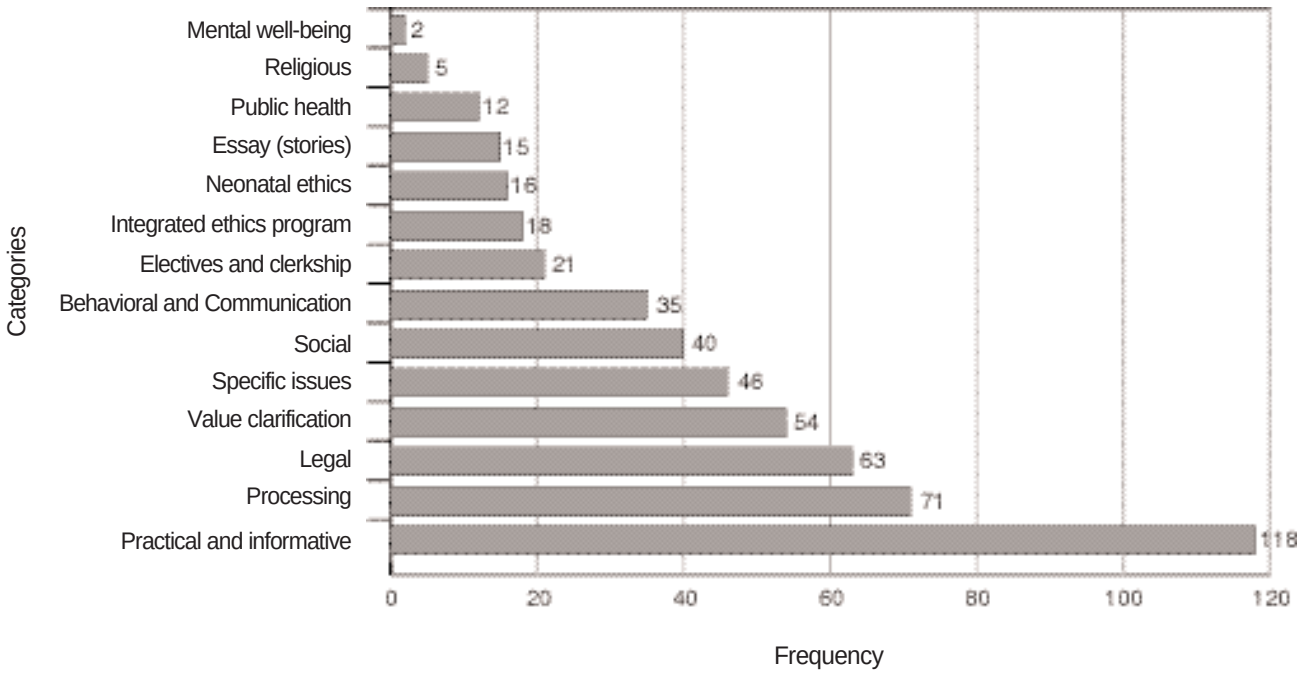

Figure 3. *Frequency of all categorized courses.*

Medical students must adopt some formal process of moral reasoning to help patients and families work out their moral dilemmas. Their ability and freedom to do so will require a wide range of learned options. Does the teaching of ethics accomplish this task? Can medical education effectively enhance moral reasoning skills in medical students? Data from current studies contradict earlier findings that medical education inhibits an increase in moral reasoning skills. Small group discussions of moral dilemmas appear to be effective in changing values and reasoning skills.[13] Teaching ethics does not appear to guarantee positive behavioral change or the application of ethical values.[14] One reason medical students are not learning the intended norms of the profession may be that the teachers are not consistently teaching the recommended values of the profession. Future research should concentrate on confirming these findings in other settings and understanding why these values are not consistently taught.[15]

Medical schools can incorporate creative and integrated curriculums, but must prevent the dilution that may occur in an unstructured and nonexplicit program. Schools that offer complete agendas, especially those emphasizing processing skills, values clarification, and daily practical issues have more potential value in changing behavior. There is debate about how medical ethics should be taught, and by whom.[16] Interweaving ethics into a 4-year program has advantages and disadvantages.[17] Though this "add-and-stir" approach introduces ethical concepts at an early stage, compacting curriculum may not allow in-depth coverage of all the important issues. Staff may perceive courses that integrate independent component disciplines as threatening, due to the loss of structure and disciplinary autonomy.[18] Downsizing of basic science departments in US medical schools is a current trend. Good intentions to integrate ethics into the curriculum are sometimes washed away by cutbacks and reduction of programs.[19] This may have implications for the quality of medical education and delivery of future healthcare in the United States.[20]

Medical ethics play a role in everyday practice. As the rules or standards governing the conduct of professionals, medical ethics are shaped by moral codes, professional regulations, socioeconomic expectations, state and federal laws, religious mores, expectations of accountability, and now managed care. The issues involved in our ethical system are justice, autonomy, confidentiality, malfeasance, paternalism, gender, culture, voluntariness, beneficence, truth telling, and now racism. What are the levels of competency in medical ethics? The variability of results produced in this study indicates that no one has settled on what constitutes a standard bioethics experience in medical school. The questions raised here require additional investigation.

Now is the time to determine what constitutes an effective experience for our students. We are now training a different breed of physician to meet the changing socioeconomic needs, and ethics are a part of that. It is hoped that the details of this investigative process will give educators and researchers insight into the current state of medical school ethics curriculum and increase awareness of the need to address the problems.

References

1. *Board action summary report.* Federation of State Medical Boards of the United States, Inc. Report released April 8, 1998.

2. Dehlendorf CE, Wolfe SM. Physicians disciplined for sex-related offenses. *JAMA* 1998;279:1883-1888.

3. Satterwhite III WM, Satterwhite RC, Enarson CE. Medical students' perceptions of unethical conduct at one medical school. *Acad Med* 1998;73:529-531.

4. Knabe BJ, Stearns JA, Glasser M. Medical students' understanding of ethical issues in the ambulatory setting. *Fam Med* 1994;26: 442-446.

5. Arnold EL, Blank LL, Race KEH, Cipparone N. Can professionalism be measured? The development of a scale for use in the medical environment. *Acad Med* 1998;73:1119-1121.

6. Douglas-Steele D, Hundert EM. Accounting for context: future directions in bioethics theory and research. *Theor Med* 1996;17:101-119.

7. Dorsch JL. BIOETHICSLINE use by medical students: curriculum-integrated instruction, collection, development, and implications. *Bull Med Libr Assoc* 1997;85:147-153.

8. Sandroni S. Enhancing clinical teaching with information technologies: what can we do right now?*Acad Med* 1997;72:770-774.

9. Knight JA. Moral growth in medical students. *Theor Med* 1995;16:265-280.

10. Glick SM. The teaching of medical ethics to medical students. *J Med Ethics* 1994;20: 239-243.

11. Brody HS, Harriet A, Foglio JP. *Theor Med* 1995;16:281-289.

12. Steele DJ, Susman JL. Integrated clinical experience. *Acad Med* 1998;73:41-47.

13. Delf DJ, Olivarez M, Baldwin DC Jr. Clarifying the relationship of medical education and moral development. *Acad Med* 1998;73: 517-520.

14. Gustafson JM. Ethics: an American growth industry. *Perspect Biol Med* 1998;42:196.

15. Stern DT. An analysis of the curriculum of values in medical education. *Am J Med* 1998; 104:569-575.

16. Southgate LJ, Heard SR, Toon PD, Salkind MR. A student-led approach to teaching. *J Med Ethics* 1987;13:139-143.

17. Schmidt H. Integrating the teaching of basic sciences, clinical sciences, and biopsychosocial issues. *Acad Med* 1998;73:S24-S31.

18. Lloyd-Jones G, Ellershaw J, Wilkinson S, Bligh J. The use of multidisciplinary consensus groups in the planning phase of an integrated problem-based curriculum. *Med Educ* 1998; 32:278-282.

19. Marinker M. Myth, paradox and the hidden curriculum. *Med Educ* 1997;31:293-298.

20. Mandel HG, The National Caucus of Basic Biomedical Science Chairs. Downsizing of basic science departments in U.S. medical schools: perceptions of their chairs. *Acad Med* 1997;72:894-900.