

Teaching Biomedical Ethics to Pharmacy Students

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INTRODUCTION

The issue of whether a professional ethos can be taught has been widely debated (1-3). As teachers, we have a responsibility to provide students with sufficient background information to enable them to perform the more complex synthesis and analysis involved in ethical decision making.

Ethics is an area that students usually enter with little formal education but with much background. Parental, religious, and peer identification strongly influence students' value systems. Often, the greatest value of a course in ethics is assisting students to formalize their own decision-making processes and to understand and respect those of others.

The authors of a recent study expressed concern over the lack of course work in ethics offered to Pharm.D. students (4). A solid knowledge base in ethical theory, principles, the rights of patients, and the duties of health care professionals must provide the basis for moral reasoning, regardless of future practice settings. It is not the categories of topics covered so much as the application of ethical theory that must be stressed in the Pharm.D. curriculum.

Students become aware of the ethical controversies encountered in pharmacy practice through their work experience, peer interaction, professional interaction, and involvement in current affairs. All people are confronted with ethical dilemmas in their lives. Spe-

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cial duties fall upon health care professionals because of their unique roles in providing essential services. It is important to note that although specific ethical issues confronting medical practitioners change continually with technological changes, the process of examining ethical issues remains constant.

COURSE DESCRIPTION

The biomedical ethics course is a three-hour elective that has been offered at the St. Louis College of Pharmacy for ten years. It is open to professional students and has generally been quite popular, with enrollment closing at the 35-student maximum. The class format is both lecture and class discussion. Topics are usually introduced by a lecture, and this is followed by case studies and open discussion. Most of the biomedical ethics texts (Appendix A) include case studies. For pharmacy-specific topics, it is often helpful to contact practitioners for ideas.

COURSE OBJECTIVES

As a result of the satisfactory completion of this course, the student should be able to:

1. Describe the major ethical theories,
2. Describe the major ethical principles,
3. Identify moral problems in medical research and practice and apply ethical theories to evaluate them,
4. Discuss current issues in biomedical ethics, such as the right to health care, abortion, euthanasia, genetic engineering, and reproductive choices,
5. Identify his/her own ethical principles and apply ethical theories to evaluate them,
6. Critically evaluate positions and papers of contemporary ethicists, and
7. Resolve ethical dilemmas in pharmacy practice.

COURSE CONTENT

The biomedical ethics course begins with an introductory segment that includes a discussion of moral development. Students are first encouraged to examine their own moral values by responding to a variety of questionnaires and case studies (Appendix B). This is followed by a brief description of theories of moral development proposed by Piaget, Kohlberg, and Gilligan. The stepwise development of moral awareness according to these theories is described. It is particularly interesting to discuss Carol Gilligan's theory that females respond differently to ethical dilemmas, tending to frame ethical decisions in terms of conflicting personal responsibilities rather than in terms of rights and abstract justice. We have been surveying students at the St. Louis College of Pharmacy for their responses to case studies designed to elicit gender gap interpretations for four years, and we have found no such gender-dependent differences to be apparent.

Major ethical theories and principles are discussed next. The teleological or consequence-oriented theory of utilitarianism suggests that one arrive at a moral decision by weighing the benefits versus the harms of an action or rule. Thus, the consequence that results in the greatest good for the greatest number is the moral solution. The deontological approach to moral decision making does not look at consequences; it is a duty-oriented theory. One must always act in accordance with duty. The philosophies of Kant, Ross, and Rawls are described.

Many current biomedical issues may be resolved by applying these theories. For example, abortion decisions may be made by weighing the benefits versus the harms or by exploring the duty to maintain the fetal life versus the pregnant woman's right to autonomy.

Ethical principles that are discussed include truth telling, confidentiality, autonomy, paternalism, justice, beneficence, and non-maleficence. Students are then introduced to the concept of a profession and to professional codes of ethics. Patients' rights and health care professionals' duties are discussed. Students break into small discussion groups to share ideas generated by case studies. Some of these are created by the instructor. Additional cases may

be found in most biomedical ethics texts. The Upjohn tapes are also a good source for discussion questions (Appendix C). For example, students are asked to examine the conflicting principles of a patient's right to refuse treatment and the health care professional's duty to treat, and the right of a patient to confidentiality when it conflicts with a pharmacist's duty to warn family members. Typically, students will share their own experiences, both as givers and receivers of health care. The role of the pharmacist as a trusted purveyor of information and the attendant responsibilities of that role are a major focus of this portion of the course.

A section on the ethics of human experimentation uses a historical approach in which past abuses by medical personnel are discussed. The students are shown a videotape (Appendix C) in which some ethical dilemmas in human experimentation are discussed. These include computer randomization of patients into double-blind clinical trials, placebo versus standard therapies as controls, and therapeutic and nontherapeutic research. Students are confronted with questions such as when does it become unethical to continue a placebo-controlled experiment? Is nontherapeutic research on humans ever morally justified?

Students discuss the concept of informed consent and the contractual model of physician-patient interactions. Are the economically deprived ever truly free to consent (i.e., under no duress)? Can the public ever be truly informed?

The topics of justice and macroallocation include discussions of how funding decisions are made in research, the right to health care and the nature of that right, orphan drugs, cost containment, drug-related diagnoses, long-term care facilities, hospices, and the role of government in health care. Microallocation, the distribution of scarce resources to individuals, is approached by assigning students roles as internal review board members responsible for triage decisions. Students are provided with the ages, social histories, occupations, and medical conditions of ten patients whose lives depend upon a scarce health care resource. Only four can be saved. The class is divided into small groups. Each group decides who qualifies for care and on what basis. The ethical basis for allocation decisions is then shared with the class as a whole.

The units on life-death issues evoke the most emotional re-

sponses from students. They begin by exploring their own concepts of personhood. These may be used in decision-making processes involving abortion, termination of fetuses with birth defects, and euthanasia. Students are divided into groups to discuss the ethics of abortion under a variety of circumstances, including genetic disease, rape, incest, poverty, and sex choice. This affords students an opportunity to discuss these sensitive issues in a relatively non-threatening environment and to hear and respond to opposing viewpoints. It also serves as a great lesson in consensus building.

Definitions of death—both legal and moral—are discussed. Current topics include living will legislation and the withholding or withdrawal of food and hydration by artificial means. These issues involve an analysis of what constitutes ordinary and extraordinary care. If food and water (regardless of route of administration) are ordinary care, then does the withdrawal of these involve active euthanasia? Active euthanasia is frequently described as an act of commission (i.e., killing), whereas passive euthanasia is viewed as an act of omission (letting die). Students are asked to explore whether these are morally relevant distinctions. Does a patient's right to autonomy always override a health care professional's duty to preserve life? Does it matter if the patient is terminally ill? Often students are willing to share their own experiences in dealing with the death of a family member or friend.

Genetic engineering and its moral implications for the future are discussed in the final unit. The incredibly rapid pace of advancement in the field of human genetics has caught many people by surprise. Issues of confidentiality, eugenics, and allocation of resources will be raised as more and more human genetic defects are detected among carriers, fetuses, and newborns. Students are taught how slippery slope arguments may be used to support or to refute genetic and reproductive manipulation.

GRADING

Students take two written examinations, a mid-term exam (30%), and a final exam (40%). Each of these is divided into three sections. The first section contains short-answer questions which might, for example, ask for the definition of a principle or concept (e.g., be-

neficence, informed consent). The second section requires students to write two major essays using ethical theories to support their positions on a particular topic or case. The answers are evaluated on the basis of the students' reasoning ability. Often, as with many ethical dilemmas, an examination of both sides of an issue yields no truly satisfactory answer. It is important that students be aware that they are graded upon the strength of their arguments, not upon the conclusions they reach. The final section tests students' knowledge about specific reading assignments.

Students submit a reflection paper based upon a paper that appears in the literature. Students may choose topics of personal interest. They must summarize the paper and defend or refute the position taken by the author. This is worth 20% of the course grade. Sources for references include the *Hastings Center Report*, the *Bibliography of Bioethics*, Medline computer search, and medical journals.

A participation grade accounts for the remaining 10% of the course grade. Experience shows that some students, although well informed, are often reluctant to express orally their views on sensitive topics. Limiting the total points assessed for participation protects such students while encouraging discussion.

SUPPLEMENTARY MATERIALS

A series of videotapes produced for the Public Broadcasting System, called "Hard Choices," is very useful (Appendix C). Issues of medical experimentation, death and dying, and patients' rights are covered. These tapes are narrated by Willard Gaylin and include vignettes of patients and physicians involved in hard choices. Fanlight Production offers a variety of videotapes on abortion, euthanasia, and patients' rights. A videotape called "To Live Until You Die" follows Elizabeth Kubler Ross as she works with dying patients and their families. It provides students with valuable insight into the process of dying.

TEXTS

Use of a required text containing anthologies of papers by well-respected philosophers ensures that students are exposed to points of view other than the instructor's—an important consideration. Many excellent texts are available (Appendix A). The text currently used in the course is *Intervention and Reflection*. In this, as in many ethics texts, readings are divided by topic, with the author's introductory notes followed by papers expressing opposing viewpoints on an issue. Students are required to read selected papers.

CONCLUSION

The impetus for offering a biomedical ethics elective at the St. Louis College of Pharmacy originally was faculty interest in the area. However, student interest in the course has been high since its inception, and the course is almost always filled. Student evaluations are generally quite positive. These surveys indicate that good communication and positive, nonjudgmental interaction among faculty and students are important factors in student attitudes. A discussion format and essay exams are a departure from the lecture format and multiple-choice exams necessitated by the large class size common to most required courses at this institution. Many students report that participation in the ethics class has fostered personal growth.

Biomedical ethics can be approached through a variety of course types and formats (5). There has been considerable discussion at this institution regarding the incorporation of ethical issues and values into course work throughout the curriculum. Students may be given ethical dilemmas as a basis for essays in composition classes. Professional ethics, including confidentiality and consent issues, should be discussed prior to clinical rotations (6).

The shift in pharmacy practice from a product- to an information-based orientation, changes in consumer knowledge, and increased liability and health care costs all continue to place pharmacists in a position of responsibility. If Gallup Polls are to be believed, pharmacists are perceived as trusted providers of information and as the

most ethical health care providers. It will, therefore, be very important for practicing pharmacists to define their own ethical values and to be aware of ethical issues that might confront them in their professional and personal lives. As pharmacy educators, we have a responsibility to provide a foundation for such endeavors.

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2. Buerki RA. Teaching professional ethics: an historical perspective. Am J Pharm Educ 1984;48:395-7.
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4. Erwin WG, Fincham JE, Miller M. Ethics coursework at colleges of pharmacy: differentiation by practice degrees awarded. Am J Pharm Educ 1987;51:24-7.
5. Reinsmith WA. Philosophy and values for pharmacy students: attempting to meet a need. Am J Pharm Educ 1987;51:153-9.
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APPENDIX A: RECOMMENDED TEXTS

- Arra, J, Rhoden N. Ethical issues in modern medicine. 3rd ed. Mountain View, CA: Mayfield, 1989.
- Brody BA, Engelhardt TH, Jr. Bioethics: readings and cases. Englewood Cliffs, NJ: Prentice-Hall, 1987.
- DeSpelder LA, Strickland AL. The last dance. 2nd ed. Palo Alto, CA; Mayfield, 1987.
- Francoeur RT. Biomedical ethics: a guide to decision making. New York: Wiley, 1983.
- Freeman JM, McDonnell K. Tough decisions: a casebook in medical ethics. New York: Oxford University, 1987.
- Levine C. Cases in bioethics: selections from the *Hastings Center Report*. New York: St. Martin's Press, 1989.
- Munson R. Intervention and reflection. 3rd ed. Belmont, CA: Wadsworth, 1988.
- Veatch RM. Cross cultural perspectives in medical ethics. Boston: Jones and Bartlett, 1989.
- Veatch RM. Medical ethics. Boston: Jones and Bartlett, 1989.

APPENDIX B: GENDER GAP INTERPRETATIONS

Case 1

Mr. and Mrs. X are happily married and have two children. Although Mr. X is gainfully employed, little money is available for extras. Mrs. X reads about surrogate parenting. She and her husband have extensively discussed the possibility and agree that carrying a child for an infertile couple would be a great service. They sign a contract for \$10,000 whereby Mrs. X agrees to be artificially inseminated with sperm from Mr. Y, to carry the resultant fetus to term, and to give up the child to Mr. and Mrs. Y at birth. During the pregnancy, Mrs. X becomes progressively attached to the unborn child she is carrying. She refuses to give the child up, claiming that as the biological mother, she has a moral right to keep the child. The Y's sue for custody. You are the judge in this case. There is no legal precedent in your state. What is your decision?

Case 2

Alice Smith has been suffering from terminal, incurable cancer for 18 months. During this time, she has been in great pain and has asked her husband of 35 years on several occasions to end her misery. After a particularly painful night, John Smith can no longer stand to see his wife's suffering and gently smothers her. He then phones the police. After a lengthy trial, John Smith is convicted of second degree murder and sentenced to 25 years in prison. The case is appealed. It is now up to the governor to issue a pardon. If you were governor, what would you do? Be sure to consider that as governor, you are sworn to uphold the law of the land.

Case 3

A pharmacist receives a prescription from a 34-year-old man for Norpace 100 mg. No. 100. The drug is being taken for cardiac arrhythmia. The pharmacist has known the patient for some time as a customer in his pharmacy. He knows the patient has been out of work for over a year and has been eligible for a state Medicaid program that includes reimbursement for prescription drugs. He also knows that the man has recently returned to a construction job and no longer qualifies for Medicaid. Moreover, he knows that the charge for this rather new and expensive drug will be about \$35 and that the man will have to take the Norpace indefinitely. He realizes that the man is cheating on his Medicaid, but also suspects that the man would try to go without the antiarrhythmic agent if he were forced to pay the bill himself. Should he raise the issue with the man, notify Medicaid, or simply forget the whole matter, concluding that his duty is to his patient's health, which is best served by helping him cheat on Medicaid?

Sex: _____ Male _____ Female

In making an ethical decision, which is most important to you? Rank as #1 which item is *most* important. If things are equally important, give them the same rank.

- _____ Justice (treating equals equally)
- _____ Doing what is morally right
- _____ Doing what society says is right
- _____ Not hurting anyone
- _____ Preserving a relationship
- _____ Looking at consequences

Discussion of Case Studies – Decisions**Case 1****Case 2****Case 3**

APPENDIX C: MATERIALS

Films and Videotapes

Fanlight Productions
47 Halifax St.
Boston, MA 02130

Filmakers Library
124 East 40th St.
New York, NY 10016

Indiana University
Audiovisual Center
Bloomington, IN 47405-5901

Time-Life Video
100 Eisenhower Dr.
Paramus, NJ 07652

Upjohn Company
Kalamazoo, MI 49001
"Ethics Perspectives"

Dept. of Public Information
KCTS/9
University of Washington
Seattle, WA 98195

Papers and Articles

Bibliography of Bioethics
Kennedy Institute of Ethics
Georgetown University
Washington, DC 20057

Hastings Center Report
255 Elm Road
Briarcliff Manor, NY 10510