ASSESSING THE GOALS AND METHODS OF FORTY MIDWESTERN MEDICAL SCHOOLS

UNDERGRADUATE HONORS THESIS (ID 499)

BY

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INTRODUCTION:

As the advancement of science and technology continues, new measures frequently are being developed which have the capacity to enhance human life. This is especially evident in the field of medicine. Society has many technological marvels at its disposal. Some examples include: 1) the use of sophisticated equipment for the prolongation of life, 2) the diagnosis and, in some cases, the correction of birth defects in utero, 3) the detection and possible prevention of certain diseases through the use of genetic screening, and 4) the creation of human conceptii in the laboratory (Levine, 1984). These examples represent only a few of the new capabilities available for mankind’s use. It appears that the future holds even more promising and seemingly limitless ventures. Eventually, it may be possible to direct the destiny of future generations.

Unfortunately, although the power of technology solves many problems in the field of medicine, it also creates new ones. Physicians must address a myriad of bioethical issues including: the definition of death, euthanasia, human experimentation, and behavior control, just to name a few. There are many conflicting interests pertaining to these issues. The needs of the patient, the patient’s family, and society must all be considered. Often, matters are compounded further by the fact that scarce or even conflicting information may be available for a particular case. Additionally, there may not be a comparable precedent to serve as an example for a particular case.
Ultimately, decisions concerning these bioethical dilemmas must be made. Since decisions affect the autonomy and human dignity of individuals, they should be made carefully. In order for persons to deal adequately with these issues, they must have guidance in decision-making processes, knowledge of the issues, and clarification of their own personal values. The actions and directions of leaders in these areas can help determine how society handles these bioethical problems. In the field of medicine, the patient looks to the physician for help in understanding and in resolving issues of a biomedical nature. Patients may rely upon physicians to share their expertise as well as assist them in analyzing the risks and benefits of available measures. Since physicians carry partial responsibility for the education of their patients, they should endeavor to provide instruction so that their patients will be capable of making logical, as well as, responsible biomedical and bioethical decisions.

In order for physicians to assume properly the role of bioethical educators, they themselves must be educated in this discipline. Physicians should be made aware of current bioethical issues and prepare themselves to deal with future issues. They ought to be encouraged to examine their system of values along with the values of others. Self-examination of personal moral codes will help physicians develop an open mind and a healthy respect for the views of others. If physicians establish their own personal codes of ethics
and corresponding logical manners of reasoning early in their career, then later decision-making will be enhanced.

Often, it is assumed that a moral code of ethics and a system of reasoning are inherent in human nature. Unfortunately, this assumption is untrue. A moral/ethical foundation first must be established. Then, the experiences of life can be added to this foundation and the individual's ethical system can be modified accordingly. Students who desire to become physicians should begin fostering bioethical decision-making skills now. Therefore, it is important that bioethics courses be offered at both the undergraduate and professional level.

As a result of taking an undergraduate bioethics course and having been accepted to medical school, the author became interested in trying to determine the current status of professional ethics courses taught in medical schools. Since the author's instructor of the bioethics course has had vast experience in the field of bioethics instruction, the author approached him about this topic. A proposal for an undergraduate research honors fellowship regarding this topic was submitted and approved. Subsequently, a team of professor and the student created the project entitled: "Assessing the Goals and Methods of Medical Ethics Courses Taught at Forty Midwestern Medical Schools." The purpose of this study was to determine what goals had been established and what methods were being employed in their bioethics courses. The data obtained were analyzed to develop a
collective model which was inferred to be useful for the assessment of their courses (Hendrix, 1987).

REVIEW OF RELATED LITERATURE:

Traditionally, ethics instruction in medical schools has been approached casually through one of two views. In Catholic medical schools, ethics have been deeply rooted in theology while secular medical schools have covered so-called "medical etiquette" (Veatch, 1977). In the early 1970's, a movement began to incorporate medical ethics courses into the curricula in a structured and more serious manner (Veatch, 1977).

Columbia University was one of the first medical schools to take this step. In 1970, they established an experimental program in bioethics and soon other schools followed their example (Veatch, 1972). A survey taken in 1972 revealed that thirty-seven special elective medical ethics courses were being offered at medical schools throughout the country (Veatch, 1977). Seventeen of ninety-five schools which were surveyed offered a special lecture series on the subject. These schools also retained nineteen faculty members who devoted part of their time to the instruction of these courses. According to Veatch, two years later in 1974, a survey of 107 medical schools reported that there were forty-seven elective courses, fifty-six special lecture series, and thirty-one bioethics instructors. Veatch also reported that forty-two medical humanities
departments had been established in American medical schools in conjunction with these courses.

A 1974 Hastings Center Survey of over 107 American medical schools yielded data which indicates that 91% of the medical schools were offering medical ethics courses. However, only 6% of the medical schools required an ethics course, while 44% offered it as an elective. The remaining schools incorporated medical ethics into other courses or through special seminars and electives (Commission..., 1976).

The Commission on the Teaching of Bioethics published a report in 1976 concerning the instruction of bioethics which contained a section regarding the instruction of bioethics in professional school settings. The report stated that the goals of bioethics instruction were the: 1) identification of moral issues, 2) development of strategies for analyzing moral problems, and 3) ability to relate moral principles to specific cases. The Commission felt these principles should be incorporated along with the development of a physician's understanding of the sick person as an individual. In the past, this development generally occurred in an unstructured manner. Students were expected to acquire an ethical code through the example of experienced physicians within the medical school atmosphere. The Commission felt that a program in bioethics was necessary to provide the student with an intellectual framework within which he/she could understand the moral dimensions of patient-physician relationships.
The Commission found that many creative and diverse approaches were taken in the instruction of bioethics. They felt the best programs consisted of courses which taught students how to identify, design, argue, and work toward resolution of bioethical issues. It was also recommended that courses be sufficient in length to allow students to develop an ordered line of reasoning as it applied to course activities. The Commission advised the establishment of a required introductory course as well as an advanced elective course. They also recommended that the course be administered by a traditional department such as medicine, pediatrics, or psychiatry (Commission..., 1976).

It was suggested by the Commission that the use of an intensive seminar was the best teaching format. They felt that a seminar format allowed for the practice of moral reasoning and problem solving. Instructors could present actual cases and lead the student through the analysis process. This method allows the student to take an active role and explore all conceivable options. Supplementary readings, audio-visual presentations, short lectures, special lecture series, and scheduled clinical ethical conferences were also recommended. The author noted that no empirical evidence was offered for the pedagogical inference.

Also, guidelines were mentioned for the qualifications of the instructors. The Commission felt that the courses should be taught by individuals who held at least a Ph.D. or an M.D. degree. Joint
instruction by an ethicist and a physician familiar with ethics was considered the ideal approach. A qualified ethicist would be employed to teach the ethical theory and the history of the discipline. A physician would be engaged to teach the clinical portion since his experience in medicine would allow him/her to relate ethical principles to actual cases.

Since public and private monies for these programs have been limited, it was recommended that certain programs be given priority for funding over others. Those receiving top priority were programs which sought to conduct and to publish bioethical research in addition to teaching bioethics courses. Second priority was given to programs which sought to develop teaching curricula which could serve as models for other schools. Third priority was given to programs which intended to develop cooperation between various disciplines such as medicine, law, theology, and philosophy. Last priority went to those who solely wished to present seminars and lecture series.

In medical schools, bioethics became a much discussed topic in 1981, when the National Board of Medical Examiners began including in-depth medical ethics questions on its examinations. The inclusion of medical ethics items on the National Board Examinations created much controversy about the relationship of the test items to instruction in medical ethics courses. Some felt this would have a positive effect on medical ethics instruction by increasing its visibility as well as encouraging more schools to adopt intensive
bioethics courses. Others feared that the ethics items on the National Board Examinations would have a detrimental effect on course instruction by reducing the course concepts to memorization. Since the researchers have found no known published data concerning the relationship between medical ethics instruction and the inclusion of medical ethics questions on these examinations, the actual effects are unknown.

A survey concerning the relevance and utility of courses in medical ethics was conducted in 1982, by the Department of Survey Design and Analysis of the American Medical Association on behalf of the Ethics Resource Center, Inc., Washington, D.C. (Pellegrino, 1985). Physicians who had graduated between 1974 and 1978 from United States medical schools were selected for inclusion in the study. The study intended to evaluate physicians perceptions of the influence of medical ethics courses and their effectiveness concerning decision-making processes.

The survey results showed that 30.7% of the respondents had received some training in medical ethics (Pellegrino et al., 1985). They reported that courses were offered at all levels as both requirements and electives. They were taught by philosophers, ethicists, physicians, and theologians. The data indicated that the majority of the respondents felt that the training was beneficial and successful in preparing them for making bioethical decisions. The majority felt the bioethics course had helped them identify value
conflicts (81.9%), increased their sensitivity to the needs of patients (78.7%), helped them better understand their own values (76.1%), or helped them deal more openly with patients and other professionals (73.3%). These surveys indicate that medical ethics courses have become a necessary and valued component of medical school curricula (Pellegrino et al., 1985).

METHODS:

The first task was the selection of the medical schools which were to be surveyed. Since the researchers were operating on a limited budget, the decision was made to survey medical schools in a region of the United States, the midwest. A total of fourteen states, which the researchers regarded as the midwestern region of the United States, was selected for inclusion in the study. Appendix A contains a map which displays the area. The fourteen states selected contained a total of forty medical schools. These schools (see Appendix B) were identified from the publication Medical School Admissions Requirements 1986-1987 United States and Canada, 36 edition. Schools of dentistry, optometry, osteopathy, and podiatry were excluded from the survey.

Once the schools had been identified, a search for the bioethics courses taught at each institution was conducted. An attempt was made to identify the instructors of bioethics courses through examination of the catalogs of these schools. Then, the researchers contacted organizations associated with bioethical studies who maintain files on
bioethics instructors. Some of these organizations included The Petus Crowe Foundation, The Hastings Center, and The American Philosophical Association. Jonathan D. Moreno, the editor of the Association's Philosophy and Medicine Newsletter provided the researchers with the names and addresses of the instructors teaching the bioethics courses at the institutions selected for the study.

Following the identification of the mailing list for the study, the researchers started developing the survey instrument. One of the researchers has conducted and published the results of several educational surveys which have yielded data for decision-making by school corporations throughout the United States as well as the Indiana Department of Education. He served as the major source of information for the development of the survey (Hendrix, 1977). The latest study with which he was affiliated was conducted in conjunction with Drs. Margaret While and Thomas Mertens. The survey instrument in "Biosocial Goals and Human Genetics: An Impact Study of NSF Workshops" (While, et al., 1987) served as the model for this researcher designed questionnaire. Other useful information concerning survey development was obtained from (Berdie, 1974), (Warwick, 1975), and (Abramson, 1984).

The survey items were constructed so as to allow the survey to be completed in an efficient manner. According to Abramson (1984), good questions should be developed so that: 1) they show face validity, 2) respondents can be expected to know the answer, and 3) questions
are clear, unambiguous, non-offensive, and fair. Attempts were made to adhere to these guidelines. Many of the questions were highly structured categorical and scaled response types which could be answered by checking or circling the appropriate response. Other questions were open-ended to elicit more varied responses. The face validity and the construct validity of the questionnaire were established by matching goals with survey items and by administering the survey instrument to Drs. Jon R. Hendrix and Thomas R. Mertens, authorities in the fields of bioethics and science education.

Since it has been shown by Warwick (1975) that the appearance of a survey affects response rate, the survey was constructed in a professional manner. It was written on an Apple IIe microcomputer with the Applewriter 2.0 word processing program. The master copy was printed on the starwriter printer with elite type. Around one hundred copies were then made with a standard copy machine. The survey was printed on both sides of each page so that only two pieces of paper were needed for the three and one-quarter page instrument.

A cover letter explaining the purpose of the survey and the procedure for completing and returning it was created and printed on Ball State University stationery (see Appendix C). In order to make the letter appear personalized, each was individually addressed and hand-signed. Enclosed with each questionnaire was a self-addressed, stamped return envelope. This was intended to make the return of the survey as convenient as possible for the recipient. The letter and
the instrument also requested the return of course syllabi with each survey. Since many individuals prefer anonymity, a comment in the cover letter expressed the researchers' intention of preserving the confidentiality of the subjects' responses. Questionnaires were organized solely by the date of their return. Respondents were offered a copy of the final report in exchange for their time.

All forty schools were mailed questionnaires on October 7, 1987. Each envelope contained a cover letter of explanation, a questionnaire, and an addressed return envelope. On November 14, 1987, follow-up letters were sent to those who had not responded. Each envelope contained a reminder letter (see Appendix D), an additional questionnaire, and a return envelope. In order to lend authority and credibility to the survey, a brochure for the Human Genetics and Bioethics Education Laboratory, of which Dr. Hendrix is Co-Director, was included.

Since the course syllabi were a needed part of the study, letters, requesting the course syllabi, were sent on November 14, 1987, to those who had returned surveys which lacked syllabi. This letter (see Appendix E) was developed to capture the attention of the recipient. It contained a cartoon elephant reminding the instructors that the researchers needed their course syllabi. Brochures were also included in these follow-up letters.

The first page and one-half of the survey (see Appendix F) was designed to elicit information regarding the respondent's state of
residence, gender, professional training, and experience. The latter part of page two and a small portion of page three focused on facts concerning the course curricula as well as the background of the students taking the course. The final portion of the questionnaire contained an extended free response question dealing with course content and methods of presentation of course material.

Responses were analyzed in two ways. Highly structured categorical and scaled response items were analyzed in terms of the proportion method. Questions analyzed in this manner included items numbered 1, 2, 3b, 4, 6, 7, and 10. All percentages were rounded to the nearest whole number. Therefore, some rounding error was expected. The remaining items, open-ended types, were analyzed in terms of frequency of response. These items were more difficult to analyze because responses were varied. Items 5, 8, and 9 were difficult to analyze because they requested that all answers which applied should be reported.

Item 11 was probably the most time-consuming questions to which subjects were asked to respond. It requested that subjects select three methods of teaching most commonly used when covering selected course material from a given list. Since responses were extremely varied, the analysis of this question required much extrapolation by the researchers. In order to combat this problem, information from the syllabi was combined with the responses from item 11 to provide an appropriate interpretation of the data.
RESULTS AND DISCUSSION:

Responses were obtained from 70% (28) of the instructors in the forty schools surveyed. However, only 30% (12) of the syllabi were returned. These responses provided the data for analysis and were used to infer the goals and methods of medical ethics instruction in the schools surveyed.

Responses were obtained from thirteen of the fourteen states surveyed, the exception being Indiana. Since 70% (28) of the midwestern medical schools were represented in the responses, sound demographical information can be inferred. The demographical data (see Table 1) revealed: 1) 82% (23) of the instructors were male, 2) 89% (25) of the respondents were currently teaching a bioethics course, 3) 90% (25) of the respondents held an M.D., a Ph.D., or both degrees, and 4) 61% (17) had been teaching the course for at least six years.

The respondents who teach medical ethics courses came from diverse backgrounds and held a variety of degrees. The greatest frequency of had degrees in philosophy, ethics, and religious studies (see Table 2). Instructors were also associated with numerous departments (see Table 3) such as psychiatry and religion. Twenty-eight percent listed either the department of medical humanities or of community/public health. A total of 18% (5) did not respond to this item.
### TABLE 1

Demographic Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male instructors</td>
<td>82%</td>
</tr>
<tr>
<td>Currently teaching a bioethics course</td>
<td>89%</td>
</tr>
<tr>
<td>Hold MD, PhD, or both</td>
<td>90%</td>
</tr>
<tr>
<td>Teaching course for at least six years</td>
<td>61%</td>
</tr>
</tbody>
</table>

### TABLE 2

Areas in which degrees are held

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>4</td>
</tr>
<tr>
<td>Medical ethics</td>
<td>2</td>
</tr>
<tr>
<td>Philosophy/ethics</td>
<td>11</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>2</td>
</tr>
<tr>
<td>Psychology/sociology</td>
<td>5</td>
</tr>
<tr>
<td>Religious studies</td>
<td>11</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>History of ideas</td>
<td>1</td>
</tr>
<tr>
<td>Music</td>
<td>1</td>
</tr>
<tr>
<td>Medicine</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
</tr>
<tr>
<td>Guidance counseling</td>
<td>1</td>
</tr>
<tr>
<td>Zoology</td>
<td>1</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
</tr>
<tr>
<td>Nursing</td>
<td>1</td>
</tr>
<tr>
<td>Population studies</td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE 3

Department with which the course is associated

<table>
<thead>
<tr>
<th>category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>no response</td>
<td>18</td>
</tr>
<tr>
<td>own dept.</td>
<td>4</td>
</tr>
<tr>
<td>medical humanities</td>
<td>14</td>
</tr>
<tr>
<td>preclinical education</td>
<td>7</td>
</tr>
<tr>
<td>psychiatry</td>
<td>4</td>
</tr>
<tr>
<td>behavioral sciences</td>
<td>7</td>
</tr>
<tr>
<td>community/public health</td>
<td>7</td>
</tr>
<tr>
<td>philosophy</td>
<td>14</td>
</tr>
<tr>
<td>medicine</td>
<td>7</td>
</tr>
<tr>
<td>religion</td>
<td>4</td>
</tr>
</tbody>
</table>

Responses to item 7 revealed that the two course textbooks most frequently listed were *Principles of Biomedical Ethics* and *Intervention and Reflection*. Appendix G includes a list of the ten different textbooks mentioned by the respondees. Thirty-nine percent (11) of the respondees indicated that they did not utilize a textbook and 11% (3) did not respond to this item (see Table 4).

Some respondees did not answer every item on the instrument. Therefore, data varies in response rate per item, especially for question number ten. It was reported in item 10 (see Table 5) that:

1) 32% (9) of the classes met two to four times per week, 2) 21% (6) of the schools awarded two credit hours for course completion, 3) 36% (10) of the schools offered a course one semester in length, 4) 36%
17

(10) of the instructors indicated that over 100 students enrolled in the course per year, and 5) 61% (17) of the schools offered the course only once a year. The course seemed to be offered equally as a requirement and an elective (see Table 6). It was found that 29% (8) offered it as an elective, 29% (8) offered it as a requirement, and 25% (7) offered it as both according to student needs.

TABLE 4

======================================================================
| Textbook Use                                      |
|======================================================================
| textbook used          | 50% |
| textbook not used      | 39% |
| no response            | 11% |
|======================================================================

TABLE 5

======================================================================
| Course Data from Question 10                       |
|======================================================================
| class meets 2-4 hours per week                    | 32% |
| two credit hours awarded                          | 21% |
| course one semester in length                     | 36% |
| 100 students enrolled in class per year           | 36% |
| course offered once a year                        | 61% |
|======================================================================
### TABLE 6

<table>
<thead>
<tr>
<th>Course Offered as an Elective vs. a Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>course offered as elective</td>
</tr>
<tr>
<td>course offered as requirement</td>
</tr>
<tr>
<td>course offered as both</td>
</tr>
</tbody>
</table>

The population of the bioethics classes consisted of both undergraduate and graduate students. Undergraduate students tended to be nursing and/or premedical majors. Graduates were generally medical students. The instructors indicated that most of the students enrolled in the bioethics courses had no previous background in bioethics; but most of the students had taken courses such as sociology and psychology.

Item 8 requested information regarding the ethical theories taught in these bioethics courses. Although various schools of ethical theories were listed (see Table 7), Kantianism and Utilitarianism elicited the most responses. Responses to item 11 indicated that a variety of teaching methods were employed. Those listed most frequently were class discussions, clinical case studies, and lecture. The few syllabi which were returned substantiated these results.

It should be noted that several factors can affect the data obtained from a survey. According to Warwick (1975), sampling errors
can occur because of inaccuracies or distortions provided by respondents, sampling variability, or missing data. These factors occurred in this study. It was assumed that respondents gave truthful information. In some cases, distortion may have been due to faulty memory of the instructors. Analysis of the open-ended response questions was difficult because respondents gave a variety of answers making classification categories hard to establish.

### TABLE 7

<table>
<thead>
<tr>
<th>Ethical theories</th>
<th>number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aristotelian/virtue</td>
<td>6</td>
</tr>
<tr>
<td>Existentialism</td>
<td>5</td>
</tr>
<tr>
<td>Kantian</td>
<td>10</td>
</tr>
<tr>
<td>Rawls</td>
<td>7</td>
</tr>
<tr>
<td>Utilitarianism</td>
<td>11</td>
</tr>
<tr>
<td>Natural law</td>
<td>3</td>
</tr>
<tr>
<td>Ross</td>
<td>2</td>
</tr>
<tr>
<td>Deontological</td>
<td>2</td>
</tr>
<tr>
<td>Rights, Covenant</td>
<td>1</td>
</tr>
<tr>
<td>JudeoChristian</td>
<td>1</td>
</tr>
<tr>
<td>Principles of autonomy, Beneficience, and Justice</td>
<td>1</td>
</tr>
<tr>
<td>Case studies</td>
<td>2</td>
</tr>
<tr>
<td>Reinhold Nieburh</td>
<td>1</td>
</tr>
<tr>
<td>no response</td>
<td>9</td>
</tr>
</tbody>
</table>

A major disadvantage of surveying via questionnaires is the low response rate. A 70% response rate for survey data is higher than
average. However, both unit and item nonresponses did occur in this survey. No information was collected from 30% of the unit samples. The researcher infers that three factors may have hindered response rate: 1) the instructors were not available to complete the survey, 2) the wrong individuals received the surveys, or 3) the recipients filed the surveys in the trash can. Many respondents failed to provide answers to some questions. This may have been because respondents lacked the information, failed to look up the information, found the question embarrassing, considered the question to be irrelevant, or considered the question to be inconsistent with other responses (Kalton, 1983).

These factors may have been responsible for the high percentage associated with the category of no response. One particular problem occurred as a result of a false assumption made by the survey constructors that all professional school curricula were structured in the same manner. Thus, many were unable to respond to item 10 question.

CONCLUSIONS:

Although the data is subject to the limitations imposed by the low number of syllabi and incomplete response rate, certain conclusions can be drawn from this study. One hundred percent of the respondents reported the existence of a medical ethics course as part of the curriculum at their institutions. A survey, similar to ours,
was conducted in 1972 and 1974 by Dr. Robert Veatch. Veatch (1972) reported that 85% of the respondents indicated that a medical ethics course existed at their institutions. Two years later, Veatch (1974) reported an increase with 91% of the respondents indicating the existence of such a course at their institution. Comparison of the data yielded from these three surveys (see Table 8) indicates that there is a trend toward the establishment of medical ethics courses as part of the medical school curriculum.

The data indicated that the majority (90%) of the instructors have some graduate level education and that the (60%) have been instructing an ethics course for at least six years. The instructors hold degrees in many diverse areas including music and history, and, therefore are also associated with numerous departments. In some cases, new departments have been created to administer the medical ethics course. Thus, it can be inferred that these instructors are unique individuals who have a strong interest in the subject matter traditionally included in medical ethics courses. Additionally, it may be inferred that there are no set guidelines for the qualification of the individuals who instruct bioethics or for the designation of a particular department for the administration of the courses.
TABLE 8

Comparison of selected data from three surveys

<table>
<thead>
<tr>
<th></th>
<th>Veatch 1972</th>
<th>Veatch 1974</th>
<th>our survey 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>medical ethics courses taught</td>
<td>85%</td>
<td>91%</td>
<td>100%</td>
</tr>
<tr>
<td>required ethics courses</td>
<td>4%</td>
<td>6%</td>
<td>29%</td>
</tr>
<tr>
<td>elective ethics courses</td>
<td>39%</td>
<td>44%</td>
<td>29%</td>
</tr>
<tr>
<td>offered as both</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Approximately 50% (14) of the instructors use textbooks in their courses. Ten textbooks were listed as primary resources for the medical ethics course. However, many indicated in item 11 that case studies, discussions during medical grand rounds, and journal readings were used instead of or in addition to a course textbook.

Since 61% (17) reported that the course was offered only once per year, it appears that medical ethics courses are offered infrequently. Since 29% (8) reported that the course was offered as an elective and 29% (8) reported that it was offered as a requirement, and 25% (7) offered both, it appears that these courses are offered equally as requirements and electives according to student needs. Veatch
reported that 4% of the schools required an ethics course in 1972. Two years later, in 1974, 6% reported a required ethics course. Comparison of these data with those of Veatch (see Table 8) reveals that there is an increase in the number of schools who require ethics as part of the curriculum. These data indicate that, although the medical curriculum is overcrowded, the importance of ethics courses is being recognized; and, thus, more courses are being included in the curriculum.

The students enrolled in the courses are from varied backgrounds. Both graduate and undergraduate students are represented. This shows that medical ethics courses are gaining priority and that students are being encouraged to begin learning the fundamentals of bioethical reasoning at an early stage in their careers.

Ethical theories are not being taught as extensively as in the past. Presently, more emphasis is placed on the application of principles rather than on theory. The popular teaching methods of clinical case studies and class discussions support this inference.

Medical issues today are different than those of the past because of the continual onslaught of newly developed technology. The application of this new technology may create even more complicated bioethical dilemmas in the future. Some physicians have to make tough decisions concerning such issues as the removal of life-support systems and the selective treatment of severely deformed neonates. These decisions may create conflict among such concepts as the duties,
obligations, and morals of each physician. Since these decisions may affect the personal autonomy and human dignity of individuals, they are important ones. Courses in medical ethics can assist the physician in clarifying these issues as well as his/her own personal values.
LITERATURE CITED


While, Margaret L. 1984. An Impact Assessment of Participation In a National Science Foundation Human Genetics and Bioethical Workshop on Biology Teachers' Implementation of Project Synthesis Goals. Ball State University, Muncie, Indiana 163 pp.

ADDITIONAL SOURCES CONSULTED


APPENDIX A

MAP OF THE MIDWESTERN REGION OF THE UNITED STATES
APPENDIX B

FORTY MIDWESTERN MEDICAL SCHOOLS
FORTY MIDWESTERN MEDICAL SCHOOLS

Alabama
University of Alabama, School of Medicine
University of South Alabama, College of Medicine

Arkansas
University of Arkansas, College of Medicine

Illinois
University of Chicago, Pritzker School of Medicine
University of Health Sciences, Chicago Medical School
University of Illinois, College of Medicine
Loyola University of Chicago, Stritch School of Medicine
Northwestern University, School of Medicine
Rush Medical College, Rush University
Southern Illinois University, School of Medicine

Indiana
Indiana University, School of Medicine

Iowa
University of Iowa, School of Medicine

Kentucky
University of Kentucky, College of Medicine
University of Louisville, School of Medicine

Louisiana
Louisiana State University, School of Medicine-New Orleans
Louisiana State University, School of Medicine-Shreveport
Tulane University, School of Medicine

Michigan
Michigan State University, College of Human Medicine
University of Michigan, School of Medicine
Wayne State University, School of Medicine

Minnesota
Mayo School of Medicine
University of Minnesota-Duluth School of Medicine
University of Minnesota-Minneapolis School of Medicine

Mississippi
University of Mississippi, School of Medicine
Missouri
University of Missouri-Columbia School of Medicine
University of Missouri-Kansas City School of Medicine
Saint Louis University, School of Medicine
Washington University, School of Medicine

Ohio
Case Western Reserve University, School of Medicine
University of Cincinnati, College of Medicine
Medical College of Ohio-Toledo
Northeastern Ohio University, College of Medicine
Ohio State University, College of Medicine
Wright State University, School of Medicine

Tennessee
East Tennessee State University, Quillen-Dishner College of Medicine
Meharry Medical College, School of Medicine
University of Tennessee Center for the Health Sciences, School of Medicine
Vanderbilt University, School of Medicine

Wisconsin
Medical College of Wisconsin
University of Wisconsin, School of Medicine
Dear Dr.,

I am a premedical honors student working on a research project with Dr. Jon R. Hendrix in the Department of Biology at Ball State University. The project's major purpose is to survey forty midwestern medical schools in order to determine what goals have been established and what methods are being employed in their bioethics courses. The data obtained will be analyzed and a manuscript prepared for publication so that individuals can have a collective model useful for evaluation of their courses.

In order for this project to succeed, your input is needed! Please complete and return the enclosed survey. A stamped, self-addressed envelope has been provided for this purpose. Each survey will be coded in order to insure preservation of anonymity. Following the completion of the project, survey identification, which will be known only to Dr. Hendrix and myself, will be destroyed. All data will be reported in group format.

I would appreciate any comments you have to offer concerning this survey. In order to express my gratitude, I wish to exchange a copy of the final report for your time. If you would like a copy, please list your address in the appropriate section on the survey. Thank you for your cooperation. I look forward to hearing from you.

Sincerely,

Jane Shanks

Ball State University is an equal opportunity employer
APPENDIX D

FOLLOW-UP LETTER TO NONRESPONDENTS
November 14, 1987

Dear Colleague:

A few weeks ago you received a survey entitled "Goals and Methods of Medical Ethics Courses." Many of your esteemed colleagues at other universities have completed and returned this survey. We value your opinion and desire to have your input along with theirs. In the event that you have misplaced your original copy of the survey, we have enclosed an additional one. Thank you again for your time and consideration.

Sincerely,

Jane Shanks

Jon R. Hendrix
Faculty Sponsor
APPENDIX E

FOLLOW-UP LETTER TO RESPONDENTS
Dear Colleague:

Recently, you completed a survey for us entitled, "Goals and Methods of Medical Ethics Courses Survey." We thank you for your input and appreciate your prompt response. However, we still need to obtain more information from you. Would you please send us a syllabus and/or a statement of your goals and objectives for your medical ethics course. Thank you again for your time and cooperation.

Sincerely,

Jane Shanks

Jon R. Hendrix
Professor of Biology
APPENDIX F

QUESTIONNAIRE
Goals and Methods of Medical Ethics Survey

Your input is needed for the development of a model syllabus for bioethics instruction. Please complete this survey and return it along with a copy of your course syllabus to: Jane Shanks, Department of Biology, Ball State University, Muncie, IN 47306. A stamped, addressed envelope has been enclosed for your convenience.

Answer by marking the appropriate box or blank.

1. In what state do you live?
   AL ____, AK ____, IA ____, IL ____, IN ____, KY ____, LA ____, MI ____,
   MN ____, MO ____, MS ____, OH ____, TN ____, WI ____,

2. Are you: male ____, female ____?

3. Are you currently teaching a bioethics or medical ethics course? Yes ____, No ____. If yes, (a) at what institution? ____________________________
   (b) in what department? ____________________________

4. What degree(s) do you hold? Check all that apply and please list any additional ones.
   B.A./B.S. ____, M.A./M.S. ____, Ph.D. ____, M.D. ____,
   Other ____________________________

5. What field(s) of study do you hold degree(s) in? Check all that apply and please list any additional ones.
   medical ethics ____, psychology/sociology ____
   philosophy/ethics ____ religious studies ____
   psychiatry ____ other: ____________________________
   ____________________________

6. How long have you been teaching a course in bioethics/medical ethics?
   fewer than two years ____ two to four years ____
   four to six years ____ more than six years ____

7. Do you use a commercially published textbook in the bioethical medical ethics course that you teach? Yes ____, No ____. If yes, please list:
   title: ____________________________
   publisher: ____________________________
   copyright year: ____; edition: _______; length of time used: _______
(e) Approximately how many times per year is your course offered?

<table>
<thead>
<tr>
<th></th>
<th>one</th>
<th>three</th>
<th>two</th>
<th>more than three</th>
</tr>
</thead>
</table>

(f) Is your course an (an) elective? __, requirement? ___

11. Listed to the right are methods often employed in the instruction of bioethics. For each of the issues listed below which you include in your course please indicate the THREE most frequently utilized methods by placing the letter of the method in rank order where one represents the highest priority.

I. Termination vs. Treatment

- a. abortion and infanticide
  - 1) __
  - 2) __
  - 3) __
- b. the problem of birth defects
  - 1) __
  - 2) __
  - 3) __
- c. euthanasia
  - 1) __
  - 2) __
  - 3) __

II. Rights to Information

- a. paternalism
  - 1) __
  - 2) __
  - 3) __
- b. truth telling
  - 1) __
  - 2) __
  - 3) __
- c. confidentiality
  - 1) __
  - 2) __
  - 3) __
- d. medical experimentation
  - 1) __
  - 2) __
  - 3) __
- e. informed consent
  - 1) __
  - 2) __
  - 3) __

III. Control and Intervention

- a. behavior control
  - 1) __
  - 2) __
  - 3) __
- b. reproductive control
  - 1) __
  - 2) __
  - 3) __
- c. eugenics
  - 1) __
  - 2) __
  - 3) __
- d. genetic screening
  - 1) __
  - 2) __
  - 3) __
- e. use of biotechnology
  - 1) __
  - 2) __
  - 3) __

IV. Resources

- a. allocation
  - 1) __
  - 2) __
  - 3) __
- b. competition
  - 1) __
  - 2) __
  - 3) __
- c. claims to health care
  - 1) __
  - 2) __
  - 3) __

If you employ any methods other than those listed above, please list:

________________________________________________________________________

Comments: ___________________________________________________________________
________________________________________________________________________

Please indicate if you would like a copy of the final report. yes __; no ___
APPENDIX G

TEXTBOOK BIBLIOGRAPHY


