

ETHICS AND HUMANITIES

Teaching Medical Ethics: Implementation and Evaluation of a New Course During Residency Training in Bahrain

MARIAM AL-JALAHMA & EBTISAM FAKHROO

Kingdom of Bahrain, Family Practice Residency Program, Ministry of Health, Bahrain

ABSTRACT **Aim:** *This paper describes the development, implementation and evaluation of a new biomedical ethics course. The major educational goal was to enable the participants to critically analyse and resolve ethical dilemmas based on sound ethical and moral reasoning.*

Background: *The course was developed and implemented in the Family Practice Residency Program (FPRP) in the Kingdom of Bahrain.*

Methodology: *Thirty-six family physician trainees participated in this course in May 2002 and January 2003. The curriculum was divided into five sessions, and each session had specific objectives, contents and teaching methods. The course was evaluated using pre- and post-tests, direct observation of participants and overall course assessment.*

Results: *Evaluations demonstrated that the participants scored higher in the post-test than in the pre-test. There was a significant statistical difference between the mean scores of both tests. After completing the course, participants produced more justifiable decisions than those generated at the beginning and felt more confident discussing and reasoning their decisions based on sound ethical and moral concepts.*

Conclusion: *Our experience had demonstrated that the trainees benefited from a structured curriculum in biomedical ethics. We believe that the development and implementation of our course may serve as a case study for training and teaching postgraduates in the area of medical ethics.*

KEYWORDS *Ethics, principles, conflict, dilemma, evaluation, teaching.*

Author for correspondence: Dr. Mariam Al-Jalahma, PO Box 26561, Kingdom of Bahrain.
Tel: 009739604945. Fax: 00973728107. E-mail: sehatek@yahoo.com

Introduction

McKinley & McAvoy (1993) defined medical ethics as that part of ethics specifically concerned with the professional standards and behaviours of doctors. In his book *Philosophical Medical Ethics*, Gillon (1996) said that our increased understanding and knowledge of diseases, their aetiologies, treatment and the social and psychological factors associated with them, have highlighted the need for doctors to be aware of the commonly occurring ethical issues in medicine and principles that guide their management.

In their study of ethical problems in medical office, Connelly & DalleMura (1988) found that 11% were related to cost of care, 9.6% were due to psychological factors that influence preference, 7.1% related to competency and capacity to choose, refusal of treatment represented 6.4% and 5.7% were problems related to informed consent. Lo & Schroeder (1981) reported that the majority of problems encountered in inpatient setting were related to withholding tests or procedures (30%), informed consent (25%), and truth telling (20%).

It is necessary to equip all doctors with skills to enable them to recognize the dilemmas, analyse them and reach sound decisions. Various approaches have been taken to introduce medical ethics in undergraduate and postgraduate training. Wright & Carrese (2001) described a curriculum to teach ethical issues in managed care setting and have concluded that their participants reported that they were somewhat better able to cope with ethical challenges encountered in the managed care setting after completing the curriculum. Yacoub & Ajeel (2000) described a similar course conducted at University of Basra in Iraq and reported that 80% of the students considered that such a course is relevant to the practice of medicine.

In the Family Practice Residency Program (FPRP), we established a curriculum in biomedical ethics that aims to equip the residents with the necessary skills and knowledge to enable them to manage ethical dilemmas encountered during their daily practice. FPRP is a four-year postgraduate training in family and community medicine. It was developed by the Ministry of Health in Bahrain in 1979 to qualify family physicians to provide curative and preventative primary health care services in the kingdom. The teaching and the training takes place in both primary and secondary care settings. Our residents come from different medical schools; West and East Europe, India, Egypt and Bahrain.

We reviewed the available literature published on the subject of teaching medical ethics, such as those published about teaching programs at the Universities of Glasgow, California, San Francisco, Washington, Chicago, Virginia, Baylor School of Medicine (Jonsen, 1989; Brody, 1989; Redmond, 1989; Walker, 1989; Beauchamp & McCullough, 1994; Goldie, 2000; Sugarman,

2000). After several educational meetings, the new curriculum was established in the form of a short course with clear goals and structured contents.

This paper describes the implementation and evaluation of the new course in ethics. It may serve as a case study for training and teaching postgraduates in the area of medical ethics.

Methodology

The Curriculum

For practical and feasibility reasons, it was agreed to design a short course to implement the curriculum. The goals, contents and evaluation of the course are described below.

I. The Curriculum Goals. The major educational goals of the curriculum were aimed at achieving the following:

- To identify ethical dilemmas raised by clinical situations
- To understand the four principles of ethics and their moral concepts
- To acquire ethical analysis skills
- To make the participants aware of their own feelings, attitudes and values and to deal with them successfully.

II. Teaching Methods. In order to facilitate critical thinking, a free exchange of ideas and to keep the sessions interesting for the participants, a variety of methods were used throughout the course. These included small and large group discussions, role play, the use of simulated patients and real case presentations.

III. The contents of the curriculum. The curriculum was divided into five sessions, each with its own objectives and teaching methodology. The outline, content and outcome of the sessions are summarized in Figure 1.

Session One. Session one begins with a role-play using a simulated patient and a volunteer from the participants for the doctor's role. The scenario of the role-play ends in a conflict. The volunteer in the doctor's role is encouraged to resolve this conflict and justify his/her decision. The participants observing the role-play are asked to make notes regarding what they think the doctor should do.

After the role-play, an open large group discussion begins. Each decision raised to solve the conflict is presented and discussed. At this point most of the participants cannot generate justifiable decisions utilizing the ethical principles. This session ended raising the participants' awareness of the importance of recognizing ethical dilemmas and conflicts that arise between doctors and their

Session topic	Objectives	Teaching methods
Session One	Raise the participants' awareness of the importance of recognizing ethical dilemmas and conflicts in the practice.	Role play Simulated patient
Session Two	Introduce the four ethical principles.	Interactive deductive session Case example
Session Three	Explore and discuss each principle Learn to apply the concept of principled negotiation with their patients that enable them to resolve such conflicts	Case presentation Small group discussion
Session Four	Learn how to deal with and manage ethical dilemmas Apply the decision procedure	Presentation Case analysis Small group discussion
Session Five	Put theory into practice	Real case presentation and analysis Large group discussion

Figure 1. Summary of the ethical course content.

patients. Figure 2 summarizes the case scenario and the proposed solutions to the dilemma.

Session Two. In this session the four basic principles of ethics and their moral concepts are introduced: respect for autonomy, beneficence, non-maleficence and justice. This session is a presentation followed by small group case discussions.

The Case

Mr. A.M. a businessman, complains from dysuria and urethral discharge.

Investigations established a gonococcal infection. You treat him and suggest that his wife should be informed and treated as well. Mr. A. insists that he doesn't want his wife to know, because this could break their marriage.

The question

What should you do ?

The options

1. Respect his opinion and treat him without treating his wife.
2. Insist on telling his wife and treating her as she might re -infect him.
3. Investigate the wife and treat her without referring to the reason.
4. Decide to tell half the truth; "there is an infection in your partner that could be transmitted to you". Without telling her the cause of the infection.

The action

Which response should you choose?

Figure 2. Case presentation.

Session Three. Session three is designed to explore each ethical principle individually. Different case scenarios, such as confidentiality, truth telling and inappropriate requests, are designed for this purpose. The participants discuss the cases again in small groups but this time with reference to the four principles.

Session Four. In this session participants learn how to deal with and manage ethical dilemmas. A decision procedure to analyse and solve an ethical dilemma is introduced to the participants. In his book *Doing right, a practical guide to ethics*, Hebert (1996) presents a seven-step decision procedure. He states that this procedure has been adapted from several sources including authors such as Thomasma, Siegler and McCullough.

We encourage the participants to use the procedure to remind them of their moral duties and to use it as a general guide for resolving a dilemma. They are not encouraged, however, to use it as a moral algorithm that provides the right answers but one to be considered when ethical principles conflict in hard cases. We found this step procedure very useful for our residents when solving ethical dilemmas. In the end the participants choose the right thing to do, suitable to the circumstances and nature of the dilemma but in reference to the four principles. Figure 3 presents the seven steps decision procedure adopted from Hebert.

Session Five. In this final session each participant is encouraged to present real cases from his/her own practice. The ethical question raised by the case is specified and the presenter is encouraged to describe the ethical concerns, to indicate his/her own feelings about the problem and what is his/her decision to resolve it. The participants in small groups are encouraged to discuss the dilemma raised by the case and whether they agree or disagree with the presenter.

Evaluation

We have attempted to design a comprehensive evaluation scheme to determine the success or failure in achieving our goals. These included the following:

Pre- and Post-test

The pre- and post-tests are designed to evaluate the participants' improvement in knowledge and problem-solving ability before and after the course. The test includes multiple-choice questions, short essays and clinical situations raising an ethical conflict where the participants are asked to justify their conflict resolution decisions. The results were analysed by SPSS statistical package and by using student t-test.

Performance Observation

The tutors observed the participants during each session. They noted the residents' ability to identify the dilemma, to analyze it in terms of each ethical principle and how they reached their decision to solve the dilemma. These observations were noted during small and large group discussions.

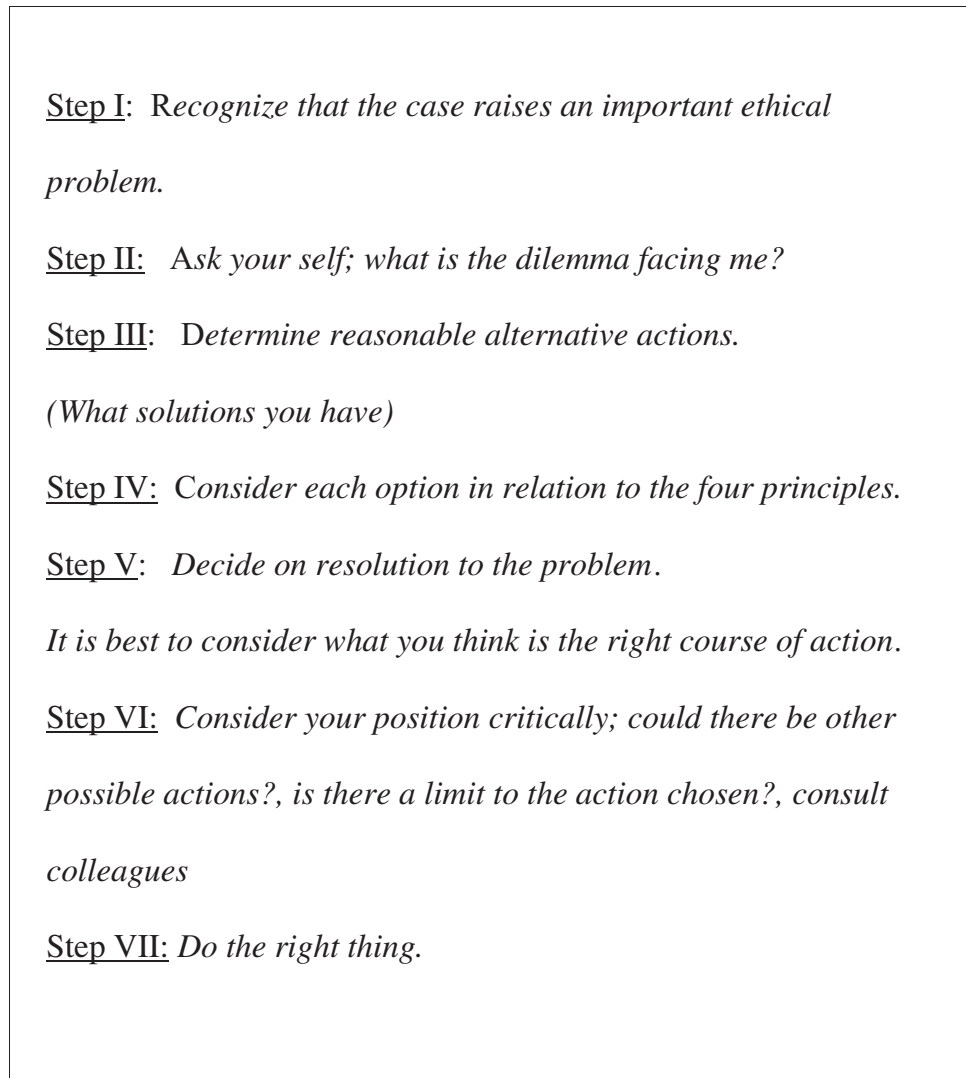


Figure 3. The seven steps decision procedure adopted from Hebert C.P.

Overall Course Evaluation

We have used a Likert scale ranging from 1 to 5 (poor to excellent). This question tool was designed to rate different areas of the course including the following: achievement of objectives, overall educational value of the course, the quality of teaching, the content and teaching methodology of the sessions, the participant confidence before and after the course and whether the course should be repeated. A space was left for the participants to comment on strengths and weaknesses of the course.

Results

Participants

Thirty-six residents (ages ranging from 28 to 35 years; 21 females and 15 males) participated in this course. None of them had ever received any formal training in ethics before. Thirty-five out of the 36 participants completed the evaluations.

Performance Observation

The participants were observed during the sessions for their ability to identify, analyse and solve ethical dilemmas. Our observation at the end of session three showed that the participants produced more justifiable decisions than in session one. They more confidently discussed and reasoned their decisions based on sound ethical and moral concepts. At the end of session four, the participants were more organized in resolving the conflict and better able to reason each decision. By the end of the course the participants were more confident in their decision-making and more openly discussed their own feelings and opinions.

Pre- & Post-course Evaluations

The pre-test was conducted during the first hour of the course. The post-test and overall evaluation were done after the last session of the course.

The results showed that the participants scored higher on the post-test than on the pre-test. The mean score on the post-test was 75% compared to the mean score on the pre-test which was 38%. The difference between the two scores was 37.2%, showing a highly statistical significance ($p < 0.05$, CI 30–95). Table 1 shows the calculated change of pre- and post-test scores.

One of the questions on both tests asked the participants to justify their decision in solving a given dilemma. The results of both tests demonstrated that our participants gave more sound reasoning in the post-test than in the pre-test. Their justification and analysis had markedly improved when comparing their responses to this question.

Table 1. The calculated change of the pre- and post-test scores

	t	df	Sig.(2-tailed)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
Change	9.818	34	0.000	37.2571	29.5452	44.9691

Overall Course Evaluation

The evaluations indicated that the course goals were achieved. The achievement was rated between very good and excellent. The quality of teaching and the educational value of the course were also rated between very good and excellent respectively. All the participants (100%) recommended the course for all residency training and thought it should start early during the first year of the residency. All the mean scores rated greater than four for content and teaching methodology. The evaluation revealed that the participants felt that their confidence in analysing and solving ethical dilemmas had increased after the course. Finally when asked about the strengths and weaknesses of the course, we received the following comments: “The course was interesting and valuable”, “Using simulated patients and role plays were stimulating and educational”, and with regards to weaknesses “The course is short and needs follow-up sessions and more case presentations”.

Discussion

The course described in this paper gave our residents an opportunity to be introduced to the subject of biomedical ethics. By asking our residents to present cases from their own practices, we enabled them to realize that many of the cases they encounter during their training regularly raise ethical issues. By asking them to identify those issues, they learned to see more ethical ambiguities than they initially recognized.

The participants showed significant improvement in their ability to identify and analyse ethical dilemmas. They could produce more justifiable decisions than those generated earlier in the course. In his article *Teaching Medical Ethics during Residency*, Perkins (1989) stated “The awareness and use of medical ethics can shape practice habits most effectively during residency, because residents’ habits are not yet ingrained”. We believe that teaching ethics during residency can sensitize the residents to patients’ values and to the conflicts of values that create dilemmas in patient care. Authors such as Stemmler (1989) and Fox *et al.* (1995) agreed that medical ethics education should be primarily case-based, rather than theoretical. Self *et al.* (1989) in their study of *The effect of teaching medical ethics on medical students’ moral reasoning* have concluded that students seem to make greater gains in moral reasoning when taught in a small group case study format rather than a lecture format.

We have used different teaching techniques in our course in order to facilitate critical thinking and free exchange of ideas. Small group discussions were the most effective. Goldie *et al.* (2001) in a study evaluating the effectiveness of small group ethics teaching, found that there was a significantly greater increase in the number of post-test consensus answers in the experimental group compared with the control group ($p=0.0048$).

Vinas-Slas *et al.* (2000) concluded that teaching bioethics by using real cases has proven to be highly effective in helping the students to solve actual cases.

Our observations and evaluations indicated that the course was effective and well received by the participants for the following reasons. First, the course was designed around practical and real cases presented by the participants. Second, the course was implemented in the second year of the residency training when our residents had already experienced and observed many of the cases that raised ethical dilemmas and were aware that they needed ethical information. Third, the course avoided lectures, used role-play, simulated patients and group discussions. Fourth, the participants demonstrated that they understood the principles of ethics and their applications better at the end than at the start of the course.

Conclusion

This course, its implementation and evaluation demonstrate a case study for training and teaching medical ethics. The evaluations at the end of the course demonstrated the achievements of the goals and improvement in the residents' ability to recognize and solve ethical dilemmas. However the lack of an evaluation to look at the long term effectiveness of the course is a limitation to our study.

Our recommendation is to encourage continuous case presentation and discussions throughout the training years. We suggest having monthly case conferences for the residents to present conflict situations they encounter during their training. These case conferences would serve as a continuous educational activity following the basic course demonstrated in this paper. Further studies are recommended to measure the change in residents' behaviour towards ethical conflicts and their ability to deal with them after participating in this course.

References

- BEAUCHAMP, T. & MCCULLOUGH, L. (1994). *Medical Ethics: The Moral Responsibility of Physician*. USA: Hall Series, pp. 13–15.
- BRODY, B. (1989). The Baylor experience in teaching medical ethics. *Academic Medicine*, 64, 715–718.
- CONNELLY, J. & DALLEMURA, S. (1988). Ethical problems in medical office. *Journal of American Medical Association*, 260, 812–815.
- FOX, E., ARNOLD, R. & BRODY, B. (1995). Medical ethics education, past, present and future, *Academic Medicine*, 70, 761–768.

- GILLON, R. (1986). *Philosophical Medical Ethics*. UK: A Wiley medical publication.
- GOLDIE, J., SCHWARTZ, L., MCCONNACHIE, A. & MORRISON, J. (2001). A process evaluation of medical ethics education in the first year of a new medical curriculum. *Medical Education*, 34(6), 468–473.
- GOLDIE, J., SCHWARTZ, L. & MORRISON, J. (2000). Impact of a new course on students' potential behavior on encountering ethical dilemmas. *Medical Education*, 35(3), 295–302.
- HEBERT, P. (1996). *Doing Right: A Practical Guide to Ethics*. Canada: Oxford University Press.
- JONSEN, A. (1989). Medical ethics teaching programs at the University of California, San Francisco, and the University of Washington. *Academic Medicine*, 64, 718–722.
- LO, B. & SCHROEDER, S. (1981). Frequency of ethical dilemmas in medical inpatient services. *Archives Internal Medicine*, 11, 1064.
- MCKINLEY, R. & MCAVOY, P. (1993) *Ethics in practice*. In R.C. Fraser (Eds), *Clinical Method*. UK: Butterworth-Heinemann Ltd, pp. 151–161.
- PERKINS, H. (1989). Teaching medical ethics during residency. *Academic Medicine*, 64, 262–266.
- REDMON, R. (1989). A medical ethics project for third year medical students. *Academic Medicine*, 64, 266–270.
- STEMMLER, E. (1989). Teaching medical ethics: A hard won beach-head. *Academic Medicine*, 64, 704.
- SELF, D., WOLINSKY, F. & BALDWIN, D. (1989). The effect of teaching medical ethics on medical students' moral reasoning. *Academic Medicine*, 64, 755–759.
- SUGARMAN, J. (2000). *20 Common Problems: Ethics in Primary Care*. USA: McGraw Hill.
- VINAS-SALAS, J., CARRER, J. & ABEL, F. (2000). Teaching through clinical cases: a good method to study bioethics. Experience at the Lleida Faculty of Medicine. *Medical Law*, 19(3), 441–449.
- WALKER, R., LANE, L & SIEGLER, M. (1989). Development of a teaching program in clinical medical ethics at the University of Chicago. *Academic Medicine*, 64, 723–728.
- WRIGHT, M. & CARRESE, G. (2001). Ethical issue in managed care settings: a new curriculum for primary care physicians. *Medical Teacher*, 23, 71–75.
- YACOUB, A. & AJEEB, N. (2000). Teaching medical ethics in Basra: Perspective of students and graduates. *Eastern Mediterranean Health Journal*, 6(4), 687–692.