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Reform in medical ethics curriculum: a step by step approach based on available resources

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Abstract

In this project, we aimed to revise the medical ethics curriculum at the School of Medicine, Tehran University of Medical Sciences, in order to promote the level of students' ethical awareness and enable them to make ethical decisions.

Ideal and long term educational objectives were set to determine directions for future reforms and to provide a baseline for future evaluation of the project. However, based on limited available recourses, the first stage of the reform was planned and implemented with a 3 years scope. In revising the curriculum, which was done according to the Harden's ten questions, we focused on moral attitude and ethical reasoning skill in addition to academic knowledge base by using methods such as case discussions, portfolio, and clinical ethics rounds. The revised curriculum was implemented during the first semester of the 2006-2007 academic year for the first time.

The student feedback indicated that the new curriculum was successful in increasing the students' awareness of ethical issues and enabled them to understand and accept their professional obligations.

Revising the curriculum and its evaluation should be considered as an ongoing process. The present project was a successful experience that motivated faculty members to pursue the next steps of improving the curriculum on medical ethics and proved to be convincing for the authorities and policy makers to support it.

Keywords: *Curriculum, Medical ethics, Undergraduate medical education.*

Introduction

Respecting professional obligations and making decisions in accordance to medical ethics are essential skills that must be built in physicians during their training as medical students (1). Any attempt aiming at improving medical ethics syllabus can play an important role in fostering those skills.

Tehran University of Medical Sciences (TUMS), being the oldest and the largest medical university in Iran, plays a key role in medical education in the Islamic Republic of Iran. The proposal of the revision of medical ethics curriculum in Iran was put forward for the first time during the National Strategic Ethics Program in 2002 (2). To address this issue, Medical Ethics and History of Medicine Research Center of TUMS in cooperation with the Medical Education Development Office of the TUMS, school of medicine planed to reform medical ethics education in 2004. This paper is intended to report the process and evaluation of the implementation of this reform.

Prior to this reform, the Department of Forensic Medicine was in charge of medical ethics education for medical students at TUMS. Teaching was delivered by the means of formal lectures as a 2-credit course in the fifth year of medical school. Except for a list of headings and subheadings for each session, there was no officially endorsed curriculum for this course, and students' evaluation was solely based on a Multiple-Choice Question Examination. A survey was conducted among the final year medical students of the School of Medicine of TUMS to clarify their evaluation of ethics education in terms of its being successful in assisting them to deal with ethically challenging issues in clinical practice (a list of 23 ethical issues), and their opinions of the necessity of a change in the syllabus. The mean score given for the necessity of the course was 8.04 out of 10, while the mean score for the efficacy of the current ethics education in terms of enabling them to make accurate and sound decisions in the ethically difficult situations was 3.76 out of 10 (3). It is noteworthy that even the director of the ethics course believed it necessary to revise the content of the course and its delivery methods.

Based on this background, a team inclusive of faculty members of different departments of the school of medicine designed and implemented a reform project in 2005 in order to improve the quality of the medical ethics course.

Description

Initially, all former medical ethics lecturers and interested faculty members of different departments of the university were invited to participate in an introductory meeting. In this meeting which was held in winter 2005, the goals of revising ethics course and its suggested methodology were explained. Fifteen out of the 17 attendees, who will hereafter be referred to as the members of the Planning Committee, declared their support and expressed their interest in participating in the project.

All members of the Planning Committee were invited to a training workshop (held in spring 2006) in which the proposed approach to revise the course based on Harden's 10 questions was clearly explained. The domains that were expected to be covered in the new ethics course were discussed and a general agreement was reached. It was decided that the curriculum should include medical ethics, medical law, and professionalism. Also, the vision was discussed during the workshop, and although it was decided to set ultimate goals, the curriculum was initially developed with a 3-years scope based on the facilities that the university may offer for the implementation of the program. Meanwhile, minor revisions were decided to be made at the end of each semester, and major revisions at the end of each period of 3 academic years, so that the ultimate goals could be achieved.

The 10 Harden's questions method was used to revise the medical ethics curriculum (4). To prepare a draft of the new curriculum, the 6-member committee, referred to as the Central Committee was formed in May 2006. The Central Committee prepared the draft of the course curriculum stage by stage during their regular weekly meetings and presented it to the Planning Committee for evaluation, potential modifications, and approval. This phase of the project took about four months.

Curriculum Elements

Needs assessment

In this step, a review of literature on Iranian's satisfaction of health care delivery related services (5-9), physicians' professional challenges in Iran (10), prevalence of ethical conflicts (11), medical ethics curricula of medical schools in Iran and other countries (12-15), and the evaluation of ethics education (16-18) was organized and carried out. Moreover, 5 professors of medicine with a great reputation in following the principles of medical ethics in their clinical practice were interviewed. Based on this needs assessment, it was concluded that it was of paramount importance to improve moral attitude, sensitize students to medical ethics issues, and develop ethical reasoning skills.

Objectives

Based on the results of needs assessment studies, the goals and objectives of the course were identified as summarized in Table 1.

These goals were set to provide the vision of the course, and no limit was considered for them during the first stage of the reform (the reform was planned within a 3-years scope). They were intended to serve as a baseline to evaluate the efficiency of the course and lead the future reforms.

Content and its organizational framework

Based on the needs assessment findings, 23 topics were proposed and discussed. These topics were then evaluated and scored by the Central Committee, and, 15 topics with highest scores were selected as the content of the medical ethics curriculum.

A number of subtopics were assigned to each topic (Table 2) so that to better represent the course contents.

Each topic was assigned to one of the members of the Planning Committee to determine session contents and specific objectives. The members made suggestions based on literature review, general and intermediate objectives, and the available resources in the first step of the reform. The objectives of each session were reviewed by 2 peers.

Educational strategies

Considering the available resources, it was decided that medical ethics course should be directed towards a problem-based and student-centered strategy from SPICES[1] strategies. The following teaching methods were used for designing and implementing these strategies:

- *Case discussion in small groups*: Our medical curriculum is a traditional one based on university lectures. Teaching through discussion in small groups of students in an organized manner was introduced in our curriculum for the first time and was considered a new experience for the school. Naturally, this raised concerns about the feasibility of the method and students' attitudes toward it. Students were divided into small groups and required to discuss educational cases in the presence of a tutor, report the group activity in class, and then the professor summarized the discussions and presented the session material.
- *Educational portfolio*: Each student was required to record three cases she/he has encountered during the clinical rotations and discuss them from an ethical point of view.
- *Ethics rounds*: On the last session of the course, students were divided into small groups based on the cases they had recorded in their portfolios. These cases were then presented and ethically analyzed in the presence of a tutor who then provided her/him feedback on the presented cases and discussed them with other students.

Assessment of the students

This was performed through formative and summative approaches. In formative assessment, students were evaluated based on one of the cases they presented in ethics round session. In summative assessment, grading was based on the attendance and active participation in group discussions (30% of the total grade), correct completion of their portfolio (20%), and their grade on the final written exam including case analyses and short answer questions (50%).

Educator evaluation

This was done formatively using the following methods:

1. Evaluation forms which were filled out by students at every session and were returned to the educator.
2. Observation of each session by a peer who was supposed to report to the faculty members through the course director.

Course evaluation

This was done every semester through the following two methods:

1. Course evaluation forms which were filled out by the students.
2. Focus group discussions which required students to discuss the strengths and weaknesses of the course.

Results of the evaluation were presented to the Planning Committee and used in the amendments of future courses.

Communication of the new curriculum

The study guide, containing information about goals and objectives of each session, teaching-learning and evaluation methods, and course regulations (developed in September 2006) was distributed among students. These documents were revised every semester. The course time table was available on the website along with all sessions' presentation slides, required readings for each session, and the news.

Program management

The members of the ethics course Planning Committee set up a virtual department consisting of the chair of department, a course director in charge of conducting and evaluating the course, and its

[1] S Student-centred rather than Teacher-centred
P Problem-based rather than Information-gathering
I Integrated rather than Discipline-based
C Community-based rather than Hospital-based
E Electives rather than Standard Programme
S Systematic rather than Apprenticeship-based

educators. These members hold regular monthly meetings and discussed and analyzed problems as well as potential changes in the course program in future.

Evaluation

The revised curriculum was first implemented in the first semester of the 2006-2007 academic years. In order to evaluate the quality of the first run of the new curriculum, a study was carried out to assess the students' abilities in terms of ethical reasoning and their knowledge and skills in ethical analysis at the beginning and the end of the course; and, it also compared students' abilities who were trained in the new and the old curriculum, the results is published separately (19). Here the result of students' survey of the curriculum success is presented.

Method and material

The new curriculum was evaluated using a questionnaire by the means of which students' opinions were asked regarding the new program, the educational methods, and its success in achieving its goals. In this questionnaire, some open-ended questions were used to encourage students to express their opinion of the strengths and weaknesses of the program and to offer their suggestions for its improvement. The questionnaires were distributed during ethics rounds (the final session of the course) and completed forms were collected on the same session.

Results

A total of 113 completed questionnaires were returned (response rate = 82.5%). The students' views are summarized in Table 3.

In evaluating the process of the course, 74.0%, 74.3%, and 78.5% of students agreed or strongly agreed that the program had practical contents, the amount of information was enough and the program was well introduced at the beginning of the semester, respectively. According to students' opinions, the program was mostly successful in terms of sensitizing them to ethical issues (more than 87.6% agreed), followed by giving them a better understanding and acceptance of their professional obligations, and humane and moral aspects of medical ethics (71.7%). However, it was mentioned that it fell short of significantly improving their ability to analyze medical ethical issues (51.3%).

As regards evaluating the educational methods, 80.8% and 78.8% of students believed that small group discussions and ethics rounds were good or excellent in terms of quality, the amount of transferred information, and its role in motivating them. Although our students had never experienced training in small groups, they not only accepted it quite well, but also rated it as a very advantageous method.

Among the 40 written comments about the strengths, the most commonly mentioned ones were small group discussions followed by using interactive methods and being applicable to a clinical setting. One student stated *"This course increases students' senses of ethical judgment and reasoning, and broadens their horizon"*. Another student expressed that *"The strength of the course was the faculty members who were committed to medical ethics themselves, and no one recalled seeing any unethical behavior by them; this would make the material more acceptable."*. In response to weaknesses, 43 comments were made, amongst which, the most important one was lack of an integrated reference for the course. Another student mentioned not using a roll call, and reported that some students were against the negative effect of absenteeism in group work on their final grade.

Among the suggestions, one said *"Ethics education should be integrated into the whole medical education period, if possible"*. Another student suggested that feedbacks should be provided on all cases recorded in students' portfolios. It was also suggested that a great emphasis should be put on ethics education in clinical wards as part of clinical rounds.

Another method used for evaluating the program was holding a focus group discussion with 9 students, 2 weeks after announcing the final exam results. Students were selected from both genders based on their grades on final exam, their interest in ethics course, and different entry years. Since the course evaluation questionnaire had been collected before the final exam and contained no items about the methods of assessment, a considerable proportion of the focus group discussion was spent on evaluating the students' assessment methods. The unanimous findings of the meeting indicated that there was insufficient time to complete the examination. Students demanded to receive feedbacks on what they had written on their final exam, or at least be given the correct answers after the exam. The students believed that discussions in group works were very helpful, and they suggested that tutors should have a better command of the subject so that they can lead the discussions more effectively.

Discussion

Since a significant part of the course objectives were attitudinal, it was very difficult to convey them and there was no tool to accurately assess the achievements. The results of course evaluation however, indicated a significant improvement in the quality of the teaching methods. In fact, the program proved to be attractive to the students and successful in raising their aware-

ness of ethical issues in their daily practice. However, we failed to fully achieve some of the course objectives. Since the assessment of achieving the objective of adhering to professional obligation was only based on students' answers, we could not envisage how well they would really practice it in future.

In order to translate ethical sensitization into the ability of ethical reasoning and practice based on professional commitments, it seems imperative to review and amend the curriculum repeatedly. The present program was planned with a 3-year scope. Evidently, the present course as a 2-credit block one can fail to effectively provide students with a solid base for their considering principles of medical ethics in clinical practice.

It is often argued that the current clinical educational environment in Iran is incapable of promoting medical professionalism and moral values in students. It is argued that there exist several impediments in various clinical educational environments that make it inadequate for developing moral values and this in turn may even cause erosion and desensitization (18, 20). Sophistication of medical decisions, heavy workload, difficult lessons, lack of time for relaxation and meditation, witnessing unethical behavior done by their superiors, insufficient support to confront stress, inability to discuss particular situations (e.g. when they had a dilemma, or unintentionally had to do something against their professional obligations) with others, seeing patients as mere educational subjects rather than a human individual who should be respected, and also scolding patients as a way to vent workplace frustrations are all examples of those deficiencies. Obviously, we cannot expect a short course with a few credit points and limited time (over approximately 34 hours) on medical ethics to entail the desired attitude and the ability of ethical reasoning in medical students (21). Indeed, a supportive system committed to the promotion of appropriate professional behavior in all settings of the university and learning atmosphere is the key factor to facilitate and strengthen this culture (22, 23).

One of the most effective reforms suggested is the longitudinal integration of medical ethics and professionalism education in all phases of undergraduate medical education (16). Students' exposure to ethical aspects of clinical care during ward rounds, role models in clinical settings and their reflection on ethical dilemmas in such environments seems to be of much more importance in comparison with attending large group lectures during a semester (22, 24). In other words, holding clinical ethics rounds at different wards appear to be more effective in making students' learning more discernible and practical (22), and in helping them to maintain their ethical sensitivity in all difficult clinical circumstances (21). However, achieving this goal requires certain preparations, and this major reform seems currently elusive at our universities.

In this study a number of different challenges were confronted with, and a variety of obstacles emerged. One of the most important challenges was shortage of full time faculty members who wish to commit themselves exclusively to teaching medical ethics and improving the course teaching methods. All faculty members and project managers involved in this project, had simultaneously several different responsibilities, they participated in teaching medical ethics as a secondary responsibility. This can jeopardize the consistency of the reform and hinder future improvement of the quality of this course.

Another issue which should be considered as challenge is the lack of motivation among members of the faculty to get involved in the ethical aspects of medicine. We cannot expect the faculty members to pay attention to ethical issues in clinical practice and teach them to their students when their respect for these matters is not monitored and has no effect in their promotion.

One of the limitations of this project was the lack of trained tutors to facilitate and lead discussions and debates in the small groups. Considering the successful results of group work in motivating students, to achieve a better outcome through this course, it seems quite necessary to train such tutors adequately so that they can better contribute to the overall improvement of the knowledge and skills of the students.

Our experience showed that revising the course of medical ethics, even with limited resources, can result in significant improvements in the quality of the program. However, reforming the program should be an ongoing process and the curriculum should be continually reviewed, revised, and adjusted to better achieve the course educational goals & objectives. To guarantee the success, the directors of medical schools should support the reform activities to motivate the faculty members and set proper conditions for the process. The favorable results of the presented project proved to be promising for designing and implementing further steps of reform and convincing the directors of medical school of the need for their more supportive role.

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Table 1. The goals & objectives of TUMS ethics curriculum

Goals:

Students should be able to identify common ethical issues when providing health care, and make appropriate decisions. For this purpose, ethics education should:

1. Enable students to understand and accept their professional obligations.
2. Enable students to understand the humane and ethical aspects of the medical profession.
3. Increase students' awareness of ethical issues around them.
4. Provide the required knowledge and skills background in students for ethical reasoning while considering legal issues.
5. Enable students to make use of this knowledge and skills in ethical decision making.

Intermediate objectives:

Cognitive objectives. concern the transfer of knowledge in the following fields:

- The principles of medical ethics and ethical theories
- Professional obligations
- Medical ethics issues (autonomy and informed consent, capacity and Surrogate decision making, physician patient relationship, confidentiality and truth telling, research ethics, end of life, resource allocation, medical errors, ethics in medical education, maternal-fetal conflict, conflict of interest, and professional relation with members of the health care team)

Skill-wise objectives. concern ethical practice and the ability to make ethical decisions, which should include the following:

1. Communicating with patients, their family members and other members of the medical community concerning medical ethics issues.
2. Encouraging patients and their family members to participate in medical decision making and effective interaction concerning medical ethics issues.
3. Self evaluation and increased observation of professional obligations.
4. Presenting and accepting constructive criticism.
5. Required skills to fulfill professional obligations and ethical decisions despite limitations at workplaces

Attitudinal objectives include the following:

1. Ethical awareness in medical practice
2. Respect, compassion, honesty, trustworthiness, and being responsive to patients' and community's needs where patients' interests come first.
3. Being responsible and accountable before the patients, society, law, and the medical profession, and commitment to Excellency.
4. Commitment to justice and fairness in providing services.
5. Respecting the role of the other members of the health care team.
6. Respecting patients as human beings, and respecting differences in culture, religion, age, gender, and patients' disabilities.
7. Open to criticism, and self evaluation.
8. Commitment to the health of one's self and the other members of the medical community.

Table 2. TUMS medical ethics syllabus

Professionalism

- Concept of profession and professionalism
- Medical Oats
- Altruism
- Responsibility
- Duty
- Integrity & honesty
- Excellence
- Challenges to professionalism

Ethical theories

- Meta ethics
- Ethical theories:
- Deontology
- Utilitarianism theories
- Virtue ethics
- Islamic philosophy of ethics
- Jurisprudence and medicine

Principles of medical ethics and ethical tools

- Autonomy
- Beneficence
- Non- maleficence
- Justice
- Approach to ethical issues
- Matrices in ethical decision making
- Physician–Patient Relationship
- The importance of a proper ethical and clinical relationship with the patient
- Respect for patient beliefs, religion, and gender
- Financial doctor-patient relationship
- Compassion
- Respect for patient's privacy

autonomy and informed consent

- The right to autonomy and its importance (including the right to refuse medical treatment)
- Criteria for valid informed consent
- Amount and components of giving information
- Participation in decision making
- Exceptions for informed consent
- Criticism on informed consent

determining capacity and substitutes for decision making

- Definition of decision making capacity

Physician relation with members of the health care team

- Principles of professional relationship with peers (doctors and other members of the Health care team)
- Approach to breach of professional behavior by peers
- Approach to peer error
- Consultation and its role in decision making

Medical liability and medical error

- Definition of medical error
- Necessity of disclosing medical error to patient
- How to disclose errors
- Medical liability
- Medical negligence
- How to deal with medical negligence

Ethics in medical education

- Patient consent
- Practicing on comatose and newly dead patients
- Maintaining quality services to patients while training students
- The role of students in confronting errors by the medical community

conflict of interest

- Definition of conflict of interest
- Self-referral
- Vendor relationships
- Conflict of interest in research
- Conflict of interest in educational centers
- Management of conflict of interest

Resource Allocation

- Medical resources
- Concept of Justice
- Levels of resource allocation
- Avoiding discrimination in giving services
- Approach to requests of inappropriate treatment
- Distribution of resources in disasters and war

ethics in research

- Informed consent

Table 2. TUMS medical ethics syllabus

• Methods of determining capacity • Selecting a substitute • Informed consent in cases of unstable capacity • Principles of decision making on the behalf of incompetent people **confidentiality and truth telling** • Necessity of confidentiality • Terms for breaching confidentiality • Necessity of truthfulness • Breaking bad news • Responsibility of telling the truth in the medical team • Ethical issues in treating with placebo	• Confidentiality • Risk / benefit evaluation • Justice • Research in vulnerable groups **Maternal-fetal conflict** • Different approaches to fetal right to life • Conflict of maternal independence with fetal life or wellbeing • Conflict of maternal health with fetal heath • Rule and regulations on abortion in the Islamic Republic of Iran **ethical issues in end of life** • Decision making for terminal ill patient • Ethical aspect of a non-resuscitation order • Euthanasia • Indications of withdrawing life support • Brain death

Table 3. Students' evaluation (%) after the first run of the revised curriculum

Process	Strongly Agree	agree	Neutral	Disagree	Strongly Disagree
The course introduction gave students was informative	21.4	57.1	14.3	6.3	0.9
Sufficient information was transferred to the students.	15.0	59.3	18.6	6.2	0.9
Course contents were practical for interns	23.1	50.9	13.9	11.1	0.9
Interactive educational methods were used appropriately	15.2	48.2	18.8	17.0	0
Course contents were scheduled appropriately	14.3	44.6	18.8	21.4	0.9
Students evaluation methods were acceptable	6.7	30.5	43.8	15.2	3.8
Management performance in terms of access to resources and information was acceptable	8.9	36.6	33.9	18.8	1.8
Amount and contents of assignments were appropriate	18.6	50.4	18.6	10.6	1.8

Table 3. Students' evaluation (%) after the first run of the revised curriculum

outcome	Strongly Agree	agree	Neutral	Disagree	Strongly Disagree
The course enabled students to realize and accept their professional obligations	12.4	59.3	15.0	13.3	0
The course enabled students to understand the human and moral aspects of their profession	11.5	54.9	20.4	12.4	0.9
The course increased students attention to ethical issues around them	34.5	53.1	9.7	2.7	0
The course provided adequate primary skills and knowledge for appropriate ethical decision making while considering legal matters	8.8	46.0	26.5	16.8	1.8
The course enabled students to use the acquired knowledge and skills in ethical decision making	7.1	44.2	27.4	16.8	4.4
Teaching methods	Strongly Agree	agree	Neutral	Disagree	Strongly Disagree
Small discussion groups	30.3	50.5	14.7	2.8	1.8
Lectures	6.4	40.4	42.2	9.2	1.8
Case presentation on final ethics rounds	31.7	47.1	17.3	3.8	0
Use of interactive methods	22.9	45.0	24.8	6.4	0.9
portfolio	12.1	39.3	32.7	12.1	3.7

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