

Comparative Study of Medical Ethics Curriculum in General Medicine Course in 10 Selected Universities in the World

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Abstract

Background: The complexity of the current health system, the expansion of the range, and types of activities of the medical group members have caused the physicians to encounter daily with many ethical issues, and as a result, attention to the medical ethics curriculum in medical science universities, in line with the increasing advances in science, has enhanced. The present study aimed to use the global experience through a comparative study of the medical ethics curriculum in a number of selected universities.

Methods: This study compares the medical ethics curriculum in selected medical schools based on the Bereday model. The top 10 Medical School, based on the Times Higher Education ranking system (THE), were selected, and the results presented in four levels of description, interpretation, juxtaposition, and simultaneous comparison.

Results: This study showed that teaching medical ethics have various objectives in different medical schools and. A wide range of topics is taught in addition to using traditional teacher-centered strategies, such as lectures, new and active educational methods, such as discussion in small groups, independent student studies, and role play have been used. For assessing the student's knowledge, written exams were the most used methods as well as measuring the students moral skills by self assessment tools and objective structured exams. Most of the medical schools adopted a multidisciplinary approach in teaching medical ethics.

Conclusion: this comparative study showed that the medical ethics curriculum should adopt a student centered strategy and multidisciplinary approach to strengthen medical student's ethical reasoning and decision making.

Keywords: MEDICAL ETHICS, COMPARATIVE STUDY, CURRICULUM

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Introduction

Medical Ethics is a set of behavioral demonstrations of a physician during a career, that manifests itself in relation to a patient, relatives, and companions, and the environment of work, and colleagues (1), and medical ethics is considered as an integral part of medical science, and its recommendations for guiding medical behaviors, and medical professional

approach (2). Biomedical ethics, as part of the curriculum, must be taught in the medical education institutions to ensure that science, and technology do not endanger human values on the pretext of protecting human health (3). Several goals have been mentioned for teaching medical ethics, that include the ability to understand the basic principles of ethics, accurate reasoning to determine the best way to deal with moral conditions (4), teaching the role of values in the physician's relationship with the patients, colleagues, and society (5), informing physicians of philosophical, social and legal principles in clinical arguments (6), and awareness of how to care for patients with

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severe conditions (7). Basic understanding of medical ethics does not meet the needs of physicians for dealing with patients, and there is no doubt that the ethical education is necessary in all medical courses, along with clinical training, and even after graduation (8). On the other hand, attention to international standards in ethics education can help to develop curriculum and effective interventions in this area. Comparative study is one of the research methods in the field of reviewing and modernizing educational programs. Comparative studies are, also, rational strategies for using the experiences of others (9).

This was a comparative study of medical ethics curriculum in the universities, to provide a model that can be used in our country's medical universities. The selected medical universities were reviewed and their medical ethics curriculum were compared.

Methods

This study was descriptive, and based on comparative study. The population of the study included 50 selected medical schools in the world, according to their global reputation and rank (according to the Times Higher Education ranking system (THE)). Of the studied population, the 10 selected medical schools, which had the majority of the items surveyed (80%) in this study, based on a checklist, formed the samples of this study. To collect the data we referred to the website of the medical school, and the information related to the topic, was searched and extracted. Then the translation of the extracted contents was done, and the information was entered into the designed checklist. In case of lack of necessary information on the university's website, correspondence with the program manager was conducted through email. The tool for collecting data from this research is a checklist prepared by the researcher based on the curriculum elements and approved by medical and ethical education experts. These elements included the goals of the course, topics

taught, the teaching and evaluation methods, and the providers of medical ethics courses. This comparative study examined and compared the medical ethics curriculum in selected universities of the world, based on the Bereday model. The Bereday model includes the stages of description, interpretation, juxtaposition, and comparison. In the description stage, research phenomena are recorded, based on evidence and information, and are prepared for review at a next stage. At the stage of interpretation, the information, described in the first stage, is checked and analyzed. In the adjacency stage, the information, that has been prepared in two steps, to create a framework for comparing similarities and differences is categorized and put together. In the comparative stage, the research problem is examined and compared, with regard to details on similarities and differences and to answer the research questions (9).

Results

An examination of the medical ethics curriculum in the world's top 10 medical schools, including Edinburgh, Pittsburgh, Hong Kong, Oxford, Carolina, Queensland, Harvard, Singapore, Michigan and Tufts, showed that advanced colleges tended to move from traditional approaches toward new educational strategies, such as the integration of ethics in the medical course. Also, other educational strategies, such as student-centered and problem-based education, have been considered in their educational practices. 90% of selected universities in this study have used the integration approach to organize the medical ethics curriculum. All universities, except for Harvard, have applied vertical integration, or both horizontal and vertical alignment into the ethics curriculum. Of the selected universities in the study, only two universities, in Pittsburgh and Carolina, have been using the strategy of being selective in offering ethical lessons in general medicine, this would indicate that the medical ethics course is one of the essential courses in the medical field.

The overall results of the comparative study of medical ethics curriculum in the 10 selected universities of the world are presented in the table below (Table 1).

Discussion and Conclusion

A wide range of educational goals has been

recognized in international experiences, in various areas of medical ethics. Eckles and colleagues (10), considered the purpose of teaching medical ethics to provide a set of skills for analysis, reasoning and ethical decision making, according to the interpretation of various articles, and in this regard, the ultimate goal of medical ethics education is

Table 1: The results of a comparative study of the medical ethics curriculum in selected universities in the world

Review title	Selected University									
	Edin- burgh	Pitts- burgh	Hong Kong	Ox- ford	Caro- lina	Queens -land	Har- vard	Singa- pore	Mich- igan	Tuft
Ethical decision making	√	√	√						√	√
Developing moral reasoning skills		√		√	√	√	√			√
Professional formation	√	√	√			√		√		
Effective communication of physician-patient	√	√	√			√				
Goals Students' acquaintance with the ethical principles		√	√			√			√	
Understanding the relevance and impact of ethical issues in medicine	√	√			√	√				√
Examining the major ethical issues in medicine					√		√		√	
Privacy and confidentiality	√	√		√	√	√	√	√		
Physician-patient relationship	√		√					√	√	√
Informed consent		√		√	√	√	√	√		
Allocation of resources		√				√	√	√	√	
Ethics and care at the end and the beginning of life		√	√	√	√	√	√	√	√	√
Head- linesw Professionalism			√		√	√	√			√
Abortion and reproduction (mother and fetus issues)	√	√			√					√
Ethical issues of life and death			√		√	√				√
Medical errors and medical malpractice		√		√				√		
Conflict of interest		√					√			√
Justice					√	√		√		
Ethics in research				√	√					√

	Lecture	√	√	√	√	√	√	√	√	√	√
	Class discussion and debate in the clinical session	√	√		√	√	√	√	√	√	√
	Seminars and conferences	√			√	√	√				
Teaching method	Discussion in small groups	√	√		√			√			√
	Web-based learning and the use of electronic resources		√			√		√	√		
	Student Studies-Independent learning				√	√	√		√	√	
	Case-based learning		√		√	√	√				√
	Rounds of medical ethics	√	√						√		
	Short-answer questions and multiple-choice written test	√	√	√		√	√	√	√		
Evaluation methods	Presentations and seminars	√			√	√		√		√	
	Participation in meetings and training classes				√	√		√		√	
	Participate in discussions with peers in the clinic				√					√	
	Responding to requested questions							√	√		
	Self-assessment						√				√
	Professors and trainers of the non-clinical medicine faculty	√	√	√		√		√		√	√
Providers	Clinical professionals	√			√	√		√		√	
	Experts and medical ethics specialists			√	√	√		√		√	
	Lawyers, law experts, and forensic specialists	√	√		√	√				√	
	Psychology experts	√		√						√	

having the practical wisdom and reason, and the expectation of training physicians with morality from the medical ethics curriculum, is considered unreasonable and unrealistic, and, instead they have emphasized the provision of a set of skills to deal with ethical complexities in the medical ethics training purposes. Also, Lawlor (11) believes that the objectives of teaching applied ethics should

not be limited to learning ethical theories, but students should learn the application of ethical theories in specific cases, and gain reasoning and analytical skills to solve a moral issue. Emphasizing on the educational dimension of medical ethics goal, Goldie (12) states: The task of medical professors is not limited to educating students with the ability to understand medical diagnosis, and

clinical decision-making, but also to train physicians, who behave not only ethically, but they are adorned with moral virtues. In this regard, Gross (13) in an article, in response to the question of “What should be the goal of medical ethics training?”, has emphasized that the goals of medical ethics education have many and varied dimensions. A wide range of goals of medical ethics education, on the one hand, enables students to recognize and make moral choices in clinical constraints, and on the other hand, they should not only have sufficient knowledge of ethical principles, but also should have human attitudes, and behavior. Providing and acquiring a set of skills for analyzing, reasoning and making ethical decisions, gaining deep knowledge of ethical principles and ethical standards, understanding the relationship and impact of ethical considerations on medical practice, establishing professionalism and gaining ethical virtues in medical students are among the goals, which selected universities are considered in this study for medical ethics.

A wide variety of issues has been identified in international experiences, that comprise the content of medical ethics, and each of them are important, and has special place in medical ethics. Concepts and principles of medical ethics, professional commitment and behavior, conscientiousness, medical letters oaths, four principles of medical ethics, reasoning and ethical analysis, ethical decision making, physician-patient relationship, physician’s relationship, confidentiality and truth-telling, informed consent, patient’s rights, ethical codes, ethics in education, ethics in research, conflict of interest, allocation of resources, medical errors, physician responsibility, ethical considerations at the end of life, ethical considerations at the beginning of life, new technology and new approaches to medicine, theories of ethical issues, religious issues, moral philosophy, bioethics, medical rights, are included (14-18).

Claudot and co-workers (14), conducted a research in the medical ethics curriculum in

European countries. Among the responses, there were 24 cases of professional ethics, 22 cases of ethical concepts, and medical ethics, 22 cases of principles of bioethics, 20 cases of patients’ rights, 19 cases of human rights, 18 cases of morality, 20 cases of conscientiousness, 16 cases of philosophy, and 8 cases of religious issues were included. In the present study, a wide range of subjects has been identified in selected universities, each of which has a special place in medical ethics, and including the relationship between the physician, and the patient, and other members of the health team, confidentiality, informed consent, resource allocation, ethical considerations at the beginning and end of life, professionalism, abortion and reproductive medicine, conflict of interests, errors and medical malpractice, and euthanasia (easy death).

In the curriculum, there are two general teaching patterns. The teacher-centric pattern, in which the aim is to form a predetermined behavior, and the teacher is a student backing point, and a student-centered pattern that focuses on the student and his needs and abilities (19). In the student-centered strategy, emphasis has been put on student participation in education, interactive lectures, discussion in small groups, discussion, role play, and cognitive thinking. Another active learning method is problem-based learning. In this method, learners are aware of the use of their information, and are able to solve it, when faced with a new problem (20). In summary, international experiences in teaching medical ethics emphasize on student-centered strategies, and problem-based learning more than theory-based approaches (21, 22).

Integration of curricula is one of the most challenging and difficult curriculum designs (23). Many studies have been conducted on integration that show that information transfer, apart from the context in which it is used, is not a right educational strategy. While the information transmitted in a suitable context, enables the students to better remember the content, and understand the relationship

between them, and perform better (24). The purpose of using the integration strategy in providing the medical ethics course is to establish a close, conceptual or theoretical connection between ethical, and medical issues in order to allow the analysis of ethical issues in various fields.

The findings of numerous articles suggest the fact that ethical education should be in connect with other medical education, and emphasize the integration of ethical, legal, and clinical issues as well as applying ethical theories (10, 12, 25). Combined organizing comprises combining different models of medical ethics education, integrating ethics into the curriculum, and the vertical and horizontal organizing, and continuing education programs (26-28). Savulescu and others noted "By incorporating a part of the ethics of medicine into the text of other curricula, medical ethics training will have both coherence, and flexibility, as a result, there will be a lot of satisfaction and success" (29).

Rameshkumar (30) writes about ethics teaching: "The teaching of medical ethics involves the use of a variety of methods", which uses from traditional lecture techniques to group discussions on clinical cases, storytelling, problem-based learning, and the use of audio and visual devices, and film. Ethics teaching sessions should be so designed, as much as possible, to provide maximum interaction between students. The use of simulation techniques films can provide a platform for students to react, to highlight ethics by comparing different perspectives. Different articles also refer to these methods (3, 31-34). Regarding the educational strategies used to present the medical ethics course in this study, in addition to using traditional teacher-centered strategies, such as lectures that are still used in almost every 10selected universities, new, active, and student-centered methods such as class discussions, seminars and student conferences, small group discussions, student independent studies, role play, workshops, and problem-based strategies, such as case-based

learning, problem-based learning, integration, and also the selectivity strategy were used.

Selected universities in this study emphasize the evaluation in different stages of education (basic science, pre-clinical and clinical), and use different methods to evaluate students. In evaluating of ethics, in the domain of knowledge, methods such as multi-choice written tests, and short answer, and in assessing the areas of attitude and skill of ethics, methods such as presenting a paper, self-assessment, answering the requested questions, participating in discussion sessions, role play and interactive sessions with standardized patients, were used.

Savulescu and co-authors (29), in a study entitled "Evaluating ethics competence in medical education" suggest that: As long as the effectiveness of the medical ethics program is not evaluated, it cannot be successful in ethics education. The ability to evaluate morality, shows that ethics is an educable subject that can be evaluated. Calman and Downie (25) in their research on developing the applied ethics program at the school of medicine at the University of Glasgow, concluded that there was a need to use various forms of assessment or exams to access to the credibility of medical ethics curriculum. Of the characteristics of appropriate assessment methods and tools are that ethical evaluation in the field of attitude and skill more than the knowledge domain has been considered.

Methods used in the evaluation of medical ethics include: objective and written tests, task evaluation, oral test, standardized patient, description of ethical competencies, clinical situation analysis, portfolio, simulation, Objective Structured Clinical Examination (OSCE), standardized tests, and evaluation of participation in group discussions (10, 14, 17, 22, 35). The outstanding feature of these methods is to assess the ethical performance. In this type of assessment, the student's performance is assessed in the use of the learned subjects, how to combine acquired information, and apply it to patient care, is evaluated. In fact,

evaluating ethical performance strengthens the role of ethics in medical education (3, 36). One of the challenges in the teaching of medical ethics is the lack of interdisciplinary view on medical ethics (37). In other words, medical ethics education should be done inter-group, and in collaboration with biomedical ethics experts, and ethics philosophy professors (38). Concepts of medical ethics are closely related to the various disciplines of the humanities, law, religion, medical sciences, and technology and the purpose of the inter-professional training of medical ethics is to express a form of teaching that students of two or more specific professions, with attendance and specialists from various fields of science, learn about professional ethics topics together and from each other to improve their cooperation and quality of health care. In studies done at Rafsanjan and Isfahan Universities of Medical Sciences, one of the important strategies developed to formulate development strategies of medical ethics, is the strategy of teaching medical ethics interdisciplinary, and by ethics professors and clinical science professors (38, 39). In the area of activity of teachers, who are responsible for theoretical education, how to apply theoretical content in the clinic, helping to obtain clinical experiences, developing professional ethics in students, as well as ensuring the moral care of the patient, is important.

Lawlor emphasizes that the Teacher-centered model to create ethical behaviors in students is very important, and in addition to this role, it is one of the important tasks of teachers to prepare students philosophically, and to improve their knowledge about the moral issues (11). To achieve this goal, it is necessary that professional ethics professors have sufficient experience, and expertise. In a study that examined the status of ethics training in Turkey, it was found that 90% of the ethical content in the curriculum was taught by teachers who did not have sufficient expertise in ethics education (40). In a study conducted by Borhani and colleagues, participants

were not satisfied with the performance of clinical instructors in teaching ethics, and acknowledged that, in clinical settings, their teachers are not familiar with ethics and how to teach it (41).

In the present study, there is a strong interdisciplinary approach between the professors, experts and specialists in various fields related to medicine and medical ethics in selected universities. General practitioners and specialists, professors of medical school, experts in medical ethics, lawyers and legal experts, professors of psychology department, and professors from ethics centers, are providers of medical ethics courses at selected universities.

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