



# Evaluation of the Impact of Courses on Islamic Education and Religious Concepts on the Promotion of Medical Ethics: A Case Study on the Students of Kerman University of Medical Sciences

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## Abstract

**Background:** According to the status of ethics in medical education and owing to the students' talent and rational spirit, it seems that the education system, despite the emphasis on courses such as medical ethics, should focus on the improvement of teaching quality of Islamic education and explanation of religious concepts, since emphasis on increasing the quality of Islamic education leads to the promotion of medical ethics.

**Objectives:** The current study aimed at evaluating the impact of courses on Islamic education and religious concepts on the promotion of medical ethics among the students of Kerman University of Medical Sciences, Kerman, Iran.

**Methods:** The current descriptive cross sectional study was conducted on 5831 students of Kerman University of Medical Sciences as the statistical population in the academic year of 2016 - 2017. Using the Morgan table, 360 subjects were selected as the study sample using stratified random sampling method. In order to collect data, a standard questionnaire, which its reliability was confirmed by Cronbach's alpha coefficient, was used. Data were analyzed using structural equation modeling with AMOS software.

**Results:** Structural equation modeling was used to analyze the data and test the hypotheses. The models could explain the measurement indices, and based on the adopted method, the fitting indices of the measurement models showed the acceptability of the measurement models for Islamic education, religious concepts, and medical ethics.

**Conclusions:** In addition to the content-related relationship with medical ethics, the Islamic education promotes ethics in the target community and has a direct impact on the education of medical ethics. Also, the explanation of religious concepts has a major impact on the promotion of the quality of medical ethics, since religious concepts, as students' subjective presuppositions, help them to better understand the content of medical ethics. By the evaluation of the research hypotheses, a direct relationship was observed between the education of Islamic education and promotion of medical ethics. Accordingly, a relationship between the religious concepts and the promotion of medical ethics was also confirmed. The course of Islamic education has a lower impact on medical ethics compared with that of religious concepts. The attention paid by the medical education system to the results of data analysis leads to an increase in the quality of Islamic education course offered to the students.

**Keywords:** Islamic Education Religious Concepts, Medical Ethics, Medical Students

## 1. Background

The medical sciences have a high degree of sanctity and virtue in various schools; in the Holy Quran Allah explicitly refers to the sacredness of medical sciences, and says: "...and if any one saved a life, it would be as if he saved the life of the whole people..." [The Holy Quran. Ma'ideh, 32]. The fact is that physicians in the Islamic community, in addition to high scientific degree, enjoy a spiritual and moral status and are always struggling to maintain moral principles and values, and they are a model for people in terms

of science and practice. Therefore, the high place of medical sciences should be acknowledged and considered as the main sciences. As the Prophet (pbuh) says: "Knowledge is of two kinds; religious sciences and medical sciences" (1).

Medical sciences, with such a degree of importance, are composed of numerous theoretic and practical fields, which medical ethics is one of them. Medical ethics, as a branch of professional ethics, tries to apply moral principles into practice through a relationship between the physician and the patient and make medical decisions

based on ethics. In other words, medical ethics can be introduced as a science compatible with medical sciences, relied on the advancement of the medical system. Ethical sciences tries to examine a set of do's and don'ts and analyze good or bad behaviors, and all the people involved in clinical or medical practices should observe them. Therefore, medical ethics is the morality in medical behaviors (the opinions of the authors).

Ethic originates from the term "etiquette". According to the terminology, the term "medical ethics" means the medical practice in the relationship between the physician and the ones interacting with him (2). Modern medical ethics, in fact The process involves an analytical activity in which thoughts, beliefs, obligations, behaviors, feelings, arguments, and discussions in ethical decisions are carefully and critically examined. The ethical decision in medicine discusses clinical practices, axioms, and values, good and bad, correct and incorrect, and do's and don'ts (3).

Medical ethics is one of the branches of professional ethics that apply moralities into physicians and medical staff practice as well as ethical decisions in medicine. In other words, medical ethics is a matter of science examining a set of acceptable or unacceptable behaviors that clinicians should follow. Therefore, medical ethics is the morality in the scene of medical practice (4). Medical ethics, in the theoretical aspect, explains the underlying principles of this science, describes the existing ethical hypotheses and its relationship with the cultures, religions, and customs of different societies. In practical terms, based on theoretical principles, it discusses matters, problems, and ethical issues in medicine and health care, and provides an applied framework for critical decision-making. Medical ethics is related to moral philosophy, human rights, divine law, and civil law (5).

Some believe that professional ethics are part of applied ethics and address the ethical challenges experienced by health care workers. Such kind of ethics may cause situation; for example, the situation of the medical profession; although it is contrary to the applied ethics that only discuss ethical norms in practical and applied cases (6, 7).

The issue of medical ethics in modern medicine, with regard to rapid development of medical sciences, is of great importance. In the era of medical knowledge expansion, the creation of new technologies and the emergence of modern therapeutic and diagnostic methods as well as technological advances, medical sciences encountered new ethical issues; therefore, traditional medical ethics somewhat lost its effectiveness (8). Therefore, it is imperative that medical ethics conform to the knowledge and technology of medicine to such an extent that during ad-

vancement and promotion, the medical community does not far from the ethical principles. The first step to observe ethical principles is to have moral knowledge and gain the ability of moral reasoning.

From the perspective of a dynamic school such as Islam, the medicine is a humanitarian and religious responsibility. Of course, this does not mean that the physician should not earn for his work, but should, along with his professional activities, provide the patient and his companions' peace of mind. Another manifestation of professional ethics in medicine is the proper interaction of the medical staff with each other. Such interaction also makes patients experience their recovery period in a relaxed atmosphere away from tensions. Beauchamp and Childress (9) and Manojlovich et al. (10) argued that: "The relationship between physician and nurse is defined as a mutual interaction in patient care to achieve common therapeutic goals. Such relationship is considered as a pivotal and ethical component in the health system, which can have different effects. The proper relationship between the members of a team improves health care practices and reduces the hospital stay period" (the opinions of the authors).

The interaction between the physician and nursing staff can provide peace of mind for the patient and his relatives, which is the ultimate goal of the physician; such interaction is of great importance to such an extent that some Western scholars believe that the advancement of medical sciences is indebted to the relationship between medical ethics principles and religious teachings (11).

In the context of the relationship between medical ethics and courses on Islamic education, a lot of commonalities can be mentioned including the fact that both topics contain valuable tips in educational ethics and the promotion of human values that can encourage humans to shift from self-determination attitudes to sacrifice and devotion, and help to maintain and promote health, treat diseases, and improve the relationship between the physician and the patient. Courses on medical ethics and Islamic education may be used as parallel learning, which can complete and eliminate each other's potential defects. For example, if there are irresponsive doubts in matching topic of medical ethics between the Western and Islamic worlds, various examples can be found referring to Islamic texts, such as Quran interpretation and narrations (the opinions of the authors).

Regarding the two dependent variables (teaching Islamic education and religious concepts) and an independent variable (the promotion of medical ethics), there are some studies that can be used as a background to the current study (the opinions of the authors). Some studies noted the direct relationship between Islamic concepts, and professional and medical ethics; for instance, Hoseini

et al. concluded in their study that Islam is provided indicators for medical ethics, which accordingly divine dignity, and feeling of responsibility for themselves, God, and society, as well as divine motivation and spiritual pleasures should be observed in practices; such variables can be the best guarantee of the implementation of ethical principles in the medical profession and can help medical staff to get rid of doubts in decision-making and implementation of their projects, compensate for the shortages of other moral schools based on human demands, worldly pleasures, and even improve human mechanical life (12). Shomali and Momeni in a study comparing Islamic and Western sources about the basics and theories of principal ethics concluded that some of the ethical principles governing Islamic or Western thoughts influence medical decision making and any other medical practices. Therefore, there is a fundamental difference between Islamic and non-Islamic (Western) medical ethics principles in terms of basics and contents, and it is necessary in Islamic countries to compile ethical principles based on Islamic worldview, jurisprudence, and philosophy and apply them in medical centers (13).

Teaching Islamic education has a strong correlation with the principles of medical ethics and increasing the quality of the aforementioned courses can directly influence the promotion of medical ethics (the opinions of the authors) (Hypothesis 1). Also, teaching and conveying religious concepts correlates with the concepts of medical ethics and affects the promotion of medical ethics quality (Hypothesis 2) (the opinions of the authors).

Therefore, it is necessary to prove these hypotheses through one or more statistical populations associated with university education and evaluate the extent of affinity between educational contents of Islamic education and moral knowledge, as well as the impact of religious texts and concepts and Islamic education on ethical promotion in order to identify and eliminate the existing challenges and exigent requirements to improve the quality of courses on Islamic education in medical education system.

## 2. Methods

The current descriptive cross sectional study was conducted on 5831 students as the statistical population studying at Kerman University of Medical Sciences in the academic year of 2016 - 2017. A total of 360 subjects were recruited based on the Morgan table (14) as the study samples using stratified random sampling method. Before initiation of the study, the study objectives were explained to the students and they were assured about the confidentiality of their information. Participation in the study was voluntarily.

In the present study, a comprehensive questionnaire was developed using the contents of "Islamic education textbooks", "religious concepts" and "promotion of medical ethics" (15-17); the questionnaire was distributed among the subjects. The reliability of each tool was 0.91, 0.83 and 0.78, respectively, based on Cronbach's alpha coefficient (18). The reliability of the comprehensive questionnaire, which included the contents of all the three topics, was confirmed (0.84). The standard questionnaire included eight items in Islamic education textbook, six items in religious concepts, and six items in promotion of medical ethics, scored based on a five-option Likert scale; the subjects should rank their suggested options from 1 (completely disagree) to 5 (completely agree). In order to reach data saturation, 390 questionnaires were distributed of which 365 were returned and used for analysis; the response rate was 93.5%.

Data were analyzed using structural equation modeling algorithm in AMOS version 24. Structural equation modeling is a very general multivariate analysis technique belonging to the multivariate regression family and, more precisely, is the general linear model extension, which lets the researcher examine a set of regression equations simultaneously. The equation modeling is a comprehensive approach to test the hypotheses on the relationships among manifest and latent variables; structural analysis of covariance is also called casual modeling, but the prevailing term is the structural equation modeling. The accepted values of goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the comparative fit index (CFI), and normal fit index (NFI) are higher than 0.90, and values above 0.95 indicate model fitness (19).

## 3. Results

In order to evaluate the model's fitness, structural equation modeling was employed. Figure 1 illustrates the impact of teaching Islamic education and religious concepts on the promotion of medical ethics.

Figure 1 and Table 1 show the results of the direct impact of variables on each other in the general model. Based on Figure 1, the impact of teaching Islamic education and religious concepts on the promotion of medical ethics was direct and significant.

Participants' demographic characteristics such as gender, age, and educational status are presented in Table 2.

Fit indices showed that the employed models were acceptable to measure courses on Islamic education, religious concepts, and medical ethics. The general fit indices of the measurement models are given in Table 3.

According to Table 3, the measurement models had good model fitness. In other words, the general indices

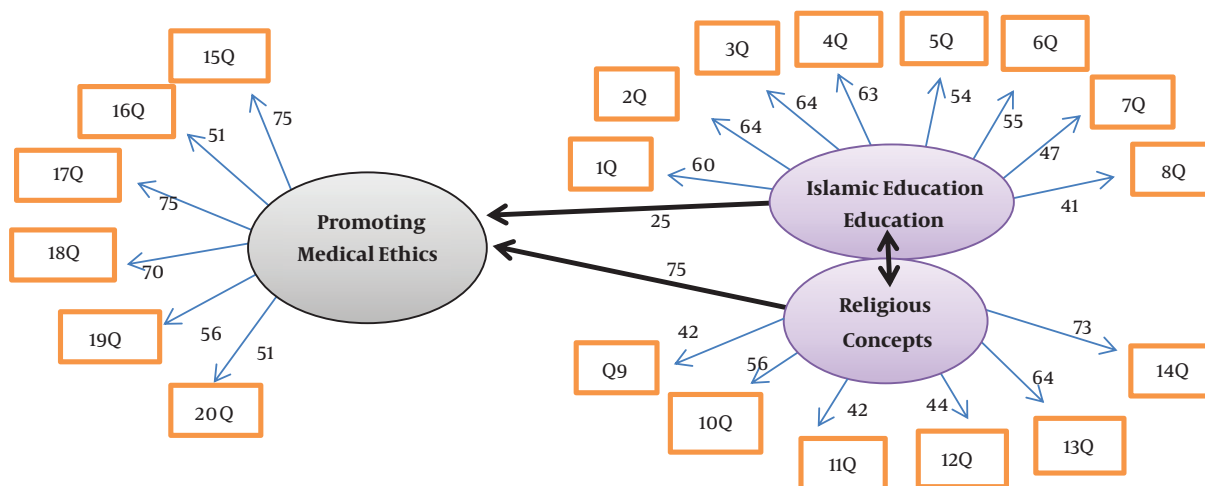


Figure 1. Structural equation model of research hypotheses

Table 1. Results of Testing Hypotheses

Hypothesis	Impact of Variable	Impact on Variable	Regression Coefficient	P Value	Result
1	Courses on Islamic education	Promotion of medical ethics	0.25	0.012	Accepted
2	Religious contents	Promotion of medical ethics	0.75	< 0.001	Accepted

Table 2. Demographic Characteristics of the Study Participants

Variable/Frequency	No. (%)
<b>Gender</b>	
Male	13 (39.5)
Female	225 (60.5)
<b>Age, y</b>	
Less than 20	41 (11.3)
20 - 25	175 (48.7)
25 - 30	120 (33.3)
Above 30	24 (6.7)
<b>Educational level</b>	
Bachelor	41 (18.6)
Master's degree	250 (45.6)
PhD	69 (31.4)

of the model showed that the data supported the models well. After evaluation and verification of the measurement models, the structural equation modeling was used to test the hypotheses. The general fit indices of the conceptual model of the study are shown in Table 4.

In addition to the content-related deep relationship with many medical ethics, courses on Islamic education can promote medical ethics in the targeted society and re-

main a direct impact on medical ethics education (Hypothesis 1). Also, understanding and conveying religious concepts to students has a significant contribution to increasing their level of productivity in terms of the concepts of medical ethics. As shown in Table 2, the influence of religious concepts on the promotion of the quality of medical ethics is even greater than that of Islamic education teaching; since courses on religious concepts, as students' subjective and ideological presuppositions, help them to better get the contents, while studying medical ethics and can also increase the level of medical ethics (Hypothesis 2).

#### 4. Discussion

The current study aimed at developing a comprehensive framework to promote medical ethics through evaluation of the impact of teaching Islamic education and religious concepts on the promotion of this particular area of professional ethics among medical students. According to the studies conducted on medical ethics, it can be concluded that the standards proposed in medical ethics are highly consistent with the ethical principles in the theoretical foundations of Islam and this leads to the promotion of medical ethics through paying more attention to the education of Islamic education. Some studies (12, 13) stated that the principles of medical ethics are parallel

**Table 3.** The General Fitting Indices of Measurement Models

Variable	Index					
	Df <sup>2</sup> /χ	GFI	AGFI	CFI	NFI	RMSEA
Courses on Islamic education	61.3	0.93	0.95	0.98	0.93	0.066
Religious concepts	3.15	0.91	0.94	0.93	0.90	0.048
Promotion of medical ethics	3.55	0.91	0.94	0.93	0.95	0.48
Acceptable fitness (19)	< 5	> 0.90	> 0.80	< 1, < 0.90	< 1, < 0.90	< 0.08

Abbreviations: AGFI, adjusted goodness of fit index; CFI, comparative fit index; df, degree of freedom; GFI, goodness of fit index; NFI, normed fit index; RMSEA, root mean square error of approximation.

**Table 4.** General Fitting Indices of Structural Research Model

Variable	Index					
	Df <sup>2</sup> /χ	GFI	AGFI	CFI	NFI	RMSEA
Structural model	3/48	0.95	0.94	0.91	0.94	0.055
Acceptable fitness (19)	< 5	> 0.90	> 0.80	< 1, < 0.90	< 1, < 0.90	< 0.08

Abbreviations: AGFI, adjusted goodness of fit index; CFI, comparative fit index; df, degree of freedom; GFI, goodness of fit index; NFI, normed fit index; RMSEA, root mean square error of approximation.

with moral principles in Islam and complementary to each other.

Some studies highlighted moral principles in medical sciences in four general categories consistent with different cultures and schools. The four moral principles include “respect for human discretion, the usefulness of practices, not harming others, and justice” (20). The ethical application of the principles by physicians requires a complete and comprehensive insight that is guidance in all the affairs. After examining the study hypotheses, a direct correlation was observed between the two components of Islamic education and the promotion of medical ethics that was consistent with the findings of Hoseini et al. (12). According to the results of the study by Shomali and Momeni (13) as well as Hoseini et al. (12), a direct relationship was observed between religious concepts and the promotion of medical ethics.

The present study was conducted at a university of medical sciences on the limited statistical population and the responses of this group to a standardized questionnaire on the impact level of courses on Islamic education and effectiveness of religious concepts to promote medical ethics were analyzed. According to the results obtained from the study hypotheses that the constructive role of courses on Islamic education on the promotion of medical ethics is somewhat neglected and has a lesser share than religious concepts in influencing the promotion of medical ethics, and in order to identify the negligence factors, the challenges facing education in this area should be addressed.

Some suggestions were offered in order to make the

teaching of Islamic education more effective using a functionalist approach, of which the negligence factors of courses on Islamic education and its reduced impact on the promotion of medical ethics are noted. Such suggestions evaluate the atmosphere of Islamic education teaching in three sections of feasibility, necessity, and facing challenges; each of the sections has subcategories.

#### 4.1. Feasibility

Suggestions in this field include “the feasibility of offering Islamic education courses at higher levels with excellent concepts during the study; teaching with the aim of familiarizing the students with Islamic issues correlated with medicine and the method to convey contents to students, planning and providing educational content with the nature of Islamic ethics, based on the medical education; the employment of experienced professors committed to ethical principles, religious foundations, and interdisciplinary viewpoint; and benefitting from positive experiences in other disciplines such as humanities”.

#### 4.2. Requirement

Suggestions for this field include “the necessity of providing meaningful concepts of Islamic education and its correlation with medical ethics during the course of study; familiarity with the religious and moral functionalities in medical practices, parallelizing theoretical and practical teaching of religious concepts and medical ethics while facing the patient in clinical courses, making religious and ethical issues tangible in the behavior of professors during the medical education and in the academic environment”.

### 4.3. Existing Challenges

Suggestions include “lack of experienced professors in the field of medical ethics, lack of familiarity of some Islamic education teachers with the medical areas and medical ethics issues; the relative weakness in the methods of conveying Islamic education to students; excessive tendency toward the translation of Western texts on medical ethics; lack of students’ persuasion in solving intellectual and ideological-religious doubts; neglecting the authentic principles of Islam in the education of medical ethics; executive problems in major programs of the educational system; and the impact of cultural gaps on educational planning”.

Obviously, if the decision-makers of the educational system in various fields, especially the medical sciences, use the results of such studies on offering Islamic education courses while assessing the needs of students and professors by themselves in order to prepare and compile textbooks, a significant promotion is observed in the quality of Islamic education in the educational system of the Islamic Republic of Iran.

### Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

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### Footnotes

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