

Teaching Medical Ethics in Iran: A Quantitative Study

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Abstract

Background and Purpose: Practice of good medicine raises many ethical issues. Teaching medical ethics is essential for medical students, but it seems that the content of the core curriculum, delivery resources, and the teaching and assessment methods, do not address this need. Our study assessed undergraduate medical and dentistry students' opinion of a presented course on medical ethics as a basic research in order to evaluate the content and presentation method of this course.

Methods: This study was a cross-sectional descriptive study on 244 students, including 146 medical and 98 dentistry students. Data were gathered using a questionnaire and analyzed by SPSS software, version 18.

Results: Of the 244 students, 59.8% were medical and 40.2% were dentistry students, and 72.3% were female. The mean±SD age was 23.1±2.68 years. 52.87% of the students stated that the clinical period was the ideal time for presenting this type of course, 42.21% stated no more than 20 students as the acceptable size for a class, and 59.4% suggested case presentation as the best teaching method. Medical and dentistry students had different opinions regarding the capability induced by this course such as: The ability of course to empower students in recognition of the professional obligations and increasing the students' ability to communicate with patients, their relatives and other members of the medical staff.

Conclusions: According to the results of this study, it is necessary to establish an appropriate, content evaluated program with educated teachers for teaching medical ethics, especially to medical students.

Keywords: Teaching medical ethics, curriculum, students' opinion

Journal of Medical Education Summer 2016; 15(3):124-36

Introduction

Medical ethics has a 2500-year history in medical education, but it has only been over the last 30 years that it has been included in the medical curriculum (1). It seems crucial that medical ethics constitute one of the core components of the medical curriculum. Inevitably, the practice of good medicine raises both ethical and legal issues and demands an understanding of both (2). In many countries, Harden's curriculum, S.P.I.C.E.S model, and UNESCO Bioethics Core Curriculum are used as templates for the medical curriculum (3). Despite the

consensus that medical ethics teaching is essential; there is conflict over balancing the need for experimental learning and designing a core curriculum, resources for delivery, teaching and assessment methods, and adequate academic expertise (1). The goal of medical ethics education is to create efficient doctors who are familiar with moral reasoning, critical thinking, and the skills of ethical analysis (4).

Within traditional medical curriculums, teaching ethics were often optional. Sometimes, students would receive a few lectures during their clinical course(s), but these were not formally assessed or timetabled.

It is only in the last 20 years that medical ethics has been featured as a core component in the medical curriculum of the United Kingdom (5). As a result, many practicing

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clinicians have not received formal training in ethics. One could argue that the knowledge of medical ethics is not acquired by intuition alone and can be taught. The dominant analytic framework in western medical ethics is the Four Principles (Respect for autonomy, Beneficence, Non-maleficence, Justice) approach. These principles were developed in the 1970s by the American philosophers Beauchamp and Childress and were popularized in Europe by Gillon (6). Medical students can be taught how to use the four principles to identify and analyze ethical issues, thus achieving various levels of proficiency in their application of methods (7).

In the United Kingdom, in 1993, the General Medical Council (GMC) recommended that medical ethics should be included in the core medical curriculum and provided a document of clear recommendations on topics required for successful implementation (8).

In Pakistan, the integrated contextual curriculum was introduced in 2009 at the Foundation University Medical College. Since 2011, communication skills and medical ethics have been introduced during first year MBBS studies in the form of small group discussions over standardized patients during skills lab sessions (9). In Turkey, medical ethics education has become an integral part of undergraduate medical curricula (10).

In India the core curriculum does not have medical ethics as a separate subject in any of its courses. Additionally, in the curriculum of forensic medicine, students are expected to “observe the principles of medical ethics in the practice of their profession” (11). All medical colleges in the United States maintain that they require ethics education and medical schools must ensure that before graduation, a student has enough knowledge of the theories and principles that govern ethical decision making (12). A study in Saudi Arabia found that of the 14 medical schools, the most responding schools (42.8%) had no ethics department. However, all of the

schools had a curriculum dedicated to medical ethics (13).

In Iran, over centuries, traditional medical ethics have been included in medical education of Iranian physicians. However, medical ethics was not treated as a separate course, but was part of the routine education for medical students at that time. Role modeling has been the main characteristic in Iran’s traditional teaching of medical ethics (14); this was due to the religious emphasis on moral virtues. Most ancient physicians in Iran, such as Abu al-hasan Ali ibn-e Raban Tabari, Mohammad Ibn-e Zakariya Razi, Avicenna, Al-ruhavi, and Ali ibn-e Abbas Ahwazi, allocated parts of their books to medical ethics (15).

After establishing the Medical Ethics Research Center as part of the Ministry of Health and Medical Education in 1993, attention to medical ethics in Iran gradually increased. It then expanded to higher levels, including within universities. It is important to note that in 2001 only 6 out of 35 medical universities in Iran had separate medical ethics departments. The remaining universities had other departments, such as Forensic Medicine and Religious Sciences and Education, which performed the duties of the medical ethics department; but not always in the right order toward medical ethics education. Thus, there was a strong need for academic teaching and erudite lecturers. In this regard, Tehran University of Medical Sciences established an MPH course in medical ethics in 2005. Furthermore, the first PhD candidates of medical ethics were taken in 2008. Tehran, Shahid Beheshti, and Shiraz University of Medical Sciences are now admitting students in this major. In the academic year 2006–2007, there was a reform in the medical ethics course for undergraduate medical students in some universities of Iran, including Shahid Beheshti University of Medical Sciences, and this course is currently presented by the Medical Ethics Department. The content, methods and teachers of the course have somewhat changed. This course now consists of 34 sessions, with each session

lasting 45 minutes, with a focus on various topics such as:

- Professionalism
- Ethical Theories
- Bioethics Principles
- Informed Consent
- Surrogate Decision Making
- Physician-Patient relationship
- End of Life Issues
- Confidentiality and Truth Telling
- Medical Errors
- Conflict of Interest
- Patients Right Charter
- Ethics in Research
- Ethics in Education
- Resource Allocation

These topics are mainly presented as lectures. However, small group discussions and case analysis are among the methods used to deliver the topics.

A study by Shidfar and colleagues was conducted in Iran to assess the status of the medical ethics education in Iranian medical faculties in 2007. According to the results, a structured Ethics Department only existed in six universities (out of 32). Furthermore, most teachers had no academic education in medical ethics and were general practitioners or medical specialists in other fields. Some were lawyers or religious scholars. The results also showed that a structured and distinct curriculum for teaching ethics only existed in 11 medical schools (16).

Now in Iran, this course is presented during the sixth semester as a two-credit course for medical students and it is presented as a single-credit course for dentistry students during the seventh semester. Teachers are almost the same for both students groups and are educated in medical ethics (i.e., they either have a Ph.D. or fellowship in medical ethics). The time presentation of this course is during the preclinical time for medical students and clinical time for dentistry students. The mean number of students in each class is 70–120 in medical and 30 in dentistry classes.

In our study, we assessed undergraduate students' opinions on different aspects of

teaching medical ethics and how much this course has been useful in communicating with patients for both medical and dentistry students. In this study, we hope to obtain valuable data to completely evaluate this course and address the deficiencies of the present program.

Methods

This was a cross-sectional descriptive study, aiming to assess students' opinion of the medical ethics course. The participants were medical and dentistry students in the last year of their undergraduate course. To be included in this study, the participants had to be medical or dentistry students who had participated in the medical ethics course at this university (not as a guest student) and were eager to collaborate in this research. Considering the prevalence of 50% for positive response to each questions, 6% error, and $\alpha=0.05\%$, the sample size was estimated to be 266. We used simple random sampling and because of some non-response rate, total 244 students were recruited so a convenient sample of 244 students, including 146 medical students and 98 dentistry students, were recruited for this study.

The participants were given sufficient information about the aim of the study and we obtained verbal informed consent from all of them before gathering our data. They were informed that the data would be anonymous and confidential. The questionnaire included three parts. The first part consisted of the students' demographic parameters. The second part was based on the students' opinions about the content and management of this course, and was scored by a Likert scale with a range of 1-5. The last part was related to their ideas about the hierarchy of different models of medical ethics teaching. The content validity of the questionnaire was assessed by a group of experts. Moreover, the reliability of the questionnaire was assessed by Cronbach's alpha, which was 0.84. The pilot study was performed on 20 students and changes were made according to the results.

After coding, we analyzed the data using SPSS software, version 18. Data were presented using descriptive statistics as frequencies and percentages. Interval and ratio variables were presented in the form of means, standard deviations, or median interquartile range and tested by Pearson's Chi-square, Fischer's exact or Wilcoxon's signed rank tests.

Results

Of the 244 students recruited in this study, 146 (59.8%) were medical students and 98 (40.2%) were dentistry students, while 176 (72.3%) were women and 68 (27.87%) were men, with a mean±SD age of 23.1±2.68 years.

The students' opinions about the time needed for teaching a medical ethics course in an undergraduate period was as follows: 52.87% through there was a need for approximately 34 academic hours being devoted to the course; 33.61% thought that 17 academic hours were appropriate; 5.7% felt that 51 academic hours were appropriate; 4.1% supported 68 academic hours; and 3.69% were in favor of more than 68 academic hours

being dedicated to the medical ethics course. Regarding the best time for presenting this course, the data showed that most students (53.28%) believed it should be offered at the start of the clinical course, while 35.66% believed it should be offered near graduation and 11.7% believed it should be offered in primary semesters. Regarding the need for the presence of a medical ethics course in the curriculum, 128 (87.67%) medical students and 90 (91.84%) dentistry students stated that it was highly necessary.

With respect to the ideal number of students for attending a class, most of the participating medical students (47.26%) and most of the data sample (42.21%) considered less than 20 students to be an acceptable class size. According to these results, there was a difference between medical and dentistry students' opinions on what the acceptable class size should be. Students' opinions on acceptable class size is shown in Table 1.

Students' opinions about the teachers' proficiency is presented in Table 2. It shows that 95.92% of dentistry students, 36.3% of medical students, and 60.25% of the total student sample stated that the teacher's proficiency was high. Analytic results show

Table 1. Students' opinions about acceptable class size

Field ACCEPTABLE NUMBER	TOTAL	MEDICINE	DENTISTRY
	NUMBER (PERCENT)	NUMBER (percent)	NUMBER (PERCENT)
<20	103 (42.21)	69 47.26	34 34.69
21-30	94 (38.52)	42 28.77	52 53.06
31-40	27 (11.07)	16 10.96	11 11.22
>40	20 (8.2)	19 13.01	1 1.02
TOTAL	244 (100)	146 100	98 100

Pearson χ^2 (3): 21.4713, P value:0.000;

Fisher's exact, P value:0.000.

Table 2. Students' opinion about teachers' proficiency in teaching

Field	Total	Medicine	Dentistry
	Number Percent	Number Percent	Number Percent
Teachers' Proficiency			
High	147 (60.25)	53 (36.3)	94 (95.92)
Moderate	83 (34.02)	80 (54.7)	3 (3.06)
Low	14 (5.74)	13 (8.9)	1 (1.02)
Total	244 (100)	146 (100)	98 (100)

Pearson χ^2 (2):87.0822, P value: 0.000;
Fisher's exact , P value: 0.000.

that there were differences between dentistry and medical students' opinions regarding teachers' proficiency in teaching

We asked students about their preferred method(s) of teaching. The results showed that most of them (60.2% of medical students, 58.1% of dentistry students, and 59.4% of the total sample) stated case presentation as the preferred method; 18.4% of the medical students, 26.5% of the dentistry students, and 21.7% of the total sample stated small group discussion, and 13.52% of the total sample (13.1% of the medical students and 14.2% of the dentistry students) stated lecture as the preferred method in teaching.

According to Table 3, most of the student sample stated the ability of this course to increase a "Sense of respect for the patient as a human being with regard to differences in culture, religion, sex and disabilities of them" was high. Also, this course has been effective in increasing "The ability to foster a sense of commitment to justice and non-discrimination in service provision" and "The ability to strengthen the sense of duty, responsibility to patients, society and commitment to professional excellence." Last is the ability of the course in increasing "The ability to empower students to recognize professional obligations" and "the ability to create a vision

for the participation of patients and relatives in the diagnostic and therapeutic decisions and their efficient interactions." The most noted differences between medical and dentistry students' opinions was in "Ability of course to empower students to recognize the professional obligations" and "Increase the students' ability to communicate with patients, their relatives and other members of the medical staff" in that dentistry students ranked these items higher than the medical students.

Medical students stated that this course had increased the ability to strengthen the sense of duty, responsibility towards the patients, society and commitment to professional excellence, the ability to foster a sense of commitment to justice and non-discrimination in service provision and the ability to create a sense of respect for the patient as a human being with regard to differences in culture, religion, sex, disabilities of the patients. However, the course did not significantly increased their ability to recognize the professional obligations or moral aspects of the medical field. Furthermore, it has not significantly increased their capability of underpinning knowledge and skills needed to

Table 3. Medical and dentistry students' opinion about the content of medical ethics course

Course abilities	Total	Medicine	Dentistry	Validity
Ability to empower students in recognition of the professional obligations	Low: 28.28% (69)	Low: 41.78% (61)	Low: 8.16% (8)	Pearson $\chi^2(2)$: 56.1378
	Medium: 34.02% (83)	Medium: 38.36% (56)	Medium: 27.55% (27)	P value: 0.000
	High: 37.7% (92)	High: 19.86% (29)	High: 64.29% (63)	Fisher's exact P value: 0.000
Enabling students to recognize the moral aspects of the medical field	Low:27.46% (67)	Low:41.78% (61)	Low:6.12% (6)	Pearson $\chi^2(2)$: 43.5457
	Medium:29.1% (71)	Medium:28.77% (42)	Medium:29.59% (29)	Pvalue:0.000
	High:43.44% (106)	High:29.45% (43)	High:64.29% (63)	Fisher's exact Pvalue:0.000
Enabling the students to pay attention to their surrounding medical ethics issues	Low: 21.72% (53)	Low: 29.45% (43)	Low: 10.2% (10)	Pearson $\chi^2(2)$: 40.1319
	Medium: 29.51% (72)	Medium: 38.36% (56)	Medium: 16.33% (16)	P value: 0.000
	High: 48.77% (119)	High: 32.19% (47)	High: 73.47% (72)	Fisher's exact P value: 0.000
Capability to produce underpinning knowledge and skills needed to make ethical decisions in the right way and with regard to the law	Low: 29.51% (72)	Low: 43.15% (63)	Low: 9.18% (9)	Pearson $\chi^2(2)$: 41.0781
	Medium: 31.97% (78)	Medium: 32.19% (47)	Medium: 31.63% (31)	P value: 0.000
	High: 38.52% (94)	High: 24.66% (36)	High: 59.18% (58)	Fisher's exact P value: 0.000
Increase the students' ability to communicate with patients, their relatives and other members of the medical staff	Low: 34.02% (83)	Low: 47.26% (69)	Low: 14.29% (14)	Pearson $\chi^2(2)$: 52.1518
	Medium: 28.28% (69)	Medium: 32.88% (48)	Medium: 21.43% (21)	P value: 0.000
	High: 37.7% (92)	High: 19.86% (29)	High: 64.29% (63)	Fisher's exact P value: 0.000

The ability to create a vision for the participation of patients and relatives in the diagnostic and therapeutic decisions and their efficient interactions	Low: 30.47% (75)	Low: 40.41% (59)	Low: 16.33% (16)	Pearson $\chi^2(2)$: 37.0788
	Medium: 29.1% (71)	Medium: 34.93% (51)	Medium: 20.41% (20)	P value: 0.000
	High: 40.16% (98)	High: 24.66% (36)	High: 63.27% (62)	Fisher's exact P value: 0.000
Increased ability to provide and accept reasonable criticism	Low: 29.51% (72)	Low: 36.3% (53)	Low: 19.39% (19)	Pearson $\chi^2(2)$: 10.5203
	Medium: 30.33 (74)	Medium: 30.82% (45)	Medium: 209.59% (29)	P value: 0.005
	High: 40.16 (98)	High: 32.88% (48)	High: 51.02% (50)	Fisher's exact P value: 0.005
Increased attention to values such as respect, compassion, honesty, reliability and meet the needs of patients and society based on patients' best interests	Low: 22.13% (54)	Low: 28.08% (41)	Low: 13.27% (13)	Pearson $\chi^2(2)$: 25.7945
	Medium: 30.33%(74)	Medium: 37.67% (55)	Medium: 19.39% (19)	P value: 0.000
	High: 47.5% (116)	High: 34.2% (50)	High: 67.35% (66)	Fisher's exact P value: 0.000
Ability to strengthen the sense of duty, responsibility towards patients, society and commitment to professional excellence	Low: 23.87%	Low: 32.19% (47)	Low:11.34%(11)	Pearson $\chi^2(2)$:24.1863
	Medium: 21.81%	Medium: 26.03% (38)	Medium:15.46%(15)	Pvalue:0.000
	High: 54.32%	High:41.78%(61)	High:73.2%(71)	Fisher's exact Pvalue:0.000
Ability to foster a sense of commitment to justice and non-discrimination in service provision	Low:19.67%(48)	Low: 26.71% (39)	Low: 9.18% (9)	Pearson $\chi^2(2)$: 15.6507
	Medium:25.82%(63)	Medium: 28.08% (41)	Medium: 22.45% (22)	P value: 0.000
	High:54.51%(133)	High: 45.21% (66)	High: 68.37% (67)	Fisher's exact P value: 0.000
The ability to create a sense of respect for the other members of the	Low: 25.41% (62)	Low: 43.93% (51)	Low: 11.22% (11)	Pearson $\chi^2(2)$: 17.4478
	Medium: 33.61% (82)	Medium: 28.77% (42)	Medium: 40.82% (40)	P value: 0.000

healthcare team	High: 40.98% (100)	High: 36.3% (53)	High: 47.96% (47)	Fisher's exact P value: 0.000
The ability to create a sense of respect for the patient as a human being with regard to differences in culture, religion, sex, disabilities of the patients	Low: 12.3% (30) Medium: 24.59% (60) High: 63.11% (154)	Low: 15.75% (23) Medium: 29.45% (43) High: 54.79% (80)	Low: 7.14% (7) Medium: 17.35% (17) High: 75.51% (74)	Pearson $\chi^2(2)$: 11.0175 P value: 0.004 Fisher's exact P value: 0.004

make ethical decisions correctly and with regard to the law. Also, the course has not significantly increased their ability to create a vision for the participation of patients and relatives in the diagnostic and therapeutic decisions, nor had it significantly helped their efficient interaction and ability to provide and accept reasonable criticism. However, the students stated 'medium' for the course's ability to enable them to pay attention to their surrounding medical ethics issues, increase their attention to values such as respect, compassion, honesty, and reliability, and meet the needs of the patients and society based on the patients' best interest. Moreover, the dentistry students stated the ability of this course as 'high' in all 13 items with significant differences.

Table 4 shows the mean, median, 25th and 75th percentile, standard deviation, and results of the non-parametric Wilcoxon signed rank test (comparing median with 3 for non-normal variables) and t test results (mean with 3 for normal variables in all students' answers). According to Table 4, this course has been most successful in introducing the feeling of respect for the patient as a human being with regard to cultural and religious differences, age, gender and disabilities, and strengthening the sense of duty, responsibility against patients, society, law and medical profession, and commitment to excellence in the profession. It has been less successful in giving the skills and knowledge base

necessary for proper ethical decision-making with regard to the legal considerations and producing the ability to communicate with patients, their relatives and other members of the medical staff to provide medical ethics issues.

Discussion

Ethics education for medical and dentistry students has included a number of relatively vague descriptions of appropriate curricular objectives. Furthermore, all over the world, there is a wide variety of content and teaching methods used, and the time in which the course is presented during students' studies can vary (17-19).

As we mentioned in our study, students' opinions varied greatly considering the different aspects of this course presentation and its content. In our study, most of the student sample (52.87%) stated 34 academic hours (an equivalent to two credits) as ideal, while 33.61% of the sample stated that 17 hours (one credit) would be preferred. In Iran, medical ethics presents as a 2-credit course for medical students and a single-credit course for dentistry students, and it seems that students think that the present course unit is enough for learning what they need. In a study conducted during a Canadian postgraduate medicine training program, two-thirds of responding program had less than 10 hours of scheduled instruction per year (20).

Table 4. Mean, median, 25th and 75th percentile, standard deviation, and results of the non-parametric Wilcoxon signed rank test (comparing median with 3 for non-normal variables) and the results of a t test (mean with 3 for normal variables in all students 'answers)

Questions	mean	p25	med	p75	SD	pvalue
1 Is the inclusion of courses in medical ethics needed in the curriculum?	4.659836	5	5	5	0.899855	0.000*
2 Could this course produce the ability to recognize and accept your professional commitments?	3.266393	2	3	4	1.216628	0.0007
3 Could the course give you the ability to recognize the humanity and ethical aspects of the medical profession?	3.336066	2	3	4	1.183638	0.0000
4 Have you increased your attention to the surrounding ethical issues?	3.512295	3	3	5	1.127587	0.0000
5 Could the course give you the skills and knowledge base necessary for proper ethical decision making with regard to the legal considerations?	3.188525	2	3	4	1.135524	0.01
6 Could the course produce the ability to communicate with patients, their relatives and other members of the medical staff to provide medical ethics issues?	3.135246	2	3	4	1.18032	0.07
7 Could the course induce you the attitude to participate patients and their relatives in diagnostic and therapeutic decisions?	3.229508	2	3	4	1.156744	0.002
8 Has the course increased your ability to provide and accept reasonable criticism?	3.237705	2	3	4	1.217521	0.002
9 Are values such as respect, caring, honesty, trustworthy and responsive to the needs of patients and society in a way that gives priority to the interests of the patients become more	3.483607	3	3	5	1.1528	0.000

prominent in your opinion?

10	Has your sense of duty, responsibility against patients, society, law and medical profession and commitment to excellence in your profession strengthened?	3.580247	3	4	5	1.225057	0.000*
11	Has your sense of commitment to justice and non-discrimination in the provision of services has been strengthened?	3.557377	3	4	4.5	1.144313	0.000
12	Has the respect of other members of the health team been created in you?	3.303279	2	3	4	1.157472	0.000
13	Has the course introduced you to the feeling of respect for the patient as a human being with regard to cultural and religious differences, age, gender and disabilities?	3.819672	3	4	5	1.092559	0.000*

Another survey in Canada showed that the amount of time spent teaching bioethics ranged from 1.5 to 9 academic hours a year; furthermore, 55% of programs spent four hours or less on the topic. In addition, there was some discordance between the topics taught and ethical issues faced by residents (21).

According to the presentation time of this course, most students considered the clinical course as the best time for presenting the medical ethics course. Approximately one-third of the students believed that the presentation time should be near graduation. Few students believed that the presentation time should be during the primary semesters. This result is in concurrence with other ideas presented by some experts in this field who believed that it would be more useful to offer the course in the students' clinical departments (22).

In our study, the medical students' opinions regarding the ideal class size was less than 20 students for each class. For the dentistry students, the ideal class size was 21–30

students, and as the number of attending dentistry students is now 20–30 in each class, and overall results shows their satisfaction of the presenting courses, it is rational for them to be satisfied. However, the number of students attending each class of medical students is 70–130.

As mentioned earlier, it seems that one criticism of this course is that crowded classes make teaching methods limited and possibly less effective (e.g., the teacher is obligated to shift her/his teaching method of small group discussion to lecture because of the number of students). On the other hand, based on all of the students' opinions, case presentation that required student collaboration was considered to be the most effective method of teaching. Thus, it seems logical to suggest that they would prefer fewer students in their classes. Similarly, related studies have shown that teaching methods other than lectures (such as small group discussions, case reports, and role plays) are often more effective (22, 23). A survey was conducted in American medical

schools and showed that out of 107 schools, 97 indicated some kind of medical ethics teaching. However, in 19 of the 97 schools, medical ethics teaching only consisted in the form of discussion revolving around ethical issues in the courses and nothing was primarily identified as an ethics course. Furthermore, 56 institutions (increased from 17 in 1972) reported that they conducted special conferences, lectures, or seminars on issues of medical ethics. Specific medical ethics electives were offered in 47 schools and some kind of required course existed at six institutions. The number of faculties with major commitments to medical ethics teaching increased approximately 50% (from 19 to 31).

Several schools now have departments or interdepartmental teaching programs with a formal structure and permanent staff (24). At Texas A&M University, a study conducted for evaluation the effect of film discussion in developing moral reasoning on first-year students, which showed a statistically significant increase in moral reasoning (25).

In this study, most of the medical and dentistry students stated that the medical ethics course is a necessary part of their curriculum and marked the role of this course in the above 13 items as 'high.' However, the results show differences between the medical students and dentistry students' opinions regarding the content of the medical ethics course; dentistry students had a more positive view than medical students in this regard. As for the best time for course presentation, the dentistry students felt that it was best presented during clinical time when they were faced with patients and their ethical issues so that they could make ethical decisions; it seems that they feel the necessity for learning how to address patients' ethical issues, how to communicate with them and their relatives – more so than the medical students.

As all items that were stated as "low" or "medium" in the medical students' opinions exist in their teaching topics, it seems that factors other than insufficient course content must be involved in such results; some of

these factor might include: inappropriate teaching methods, uneducated teachers, low student motivation, and improper presentation time. These are items that should be further evaluated.

Conclusion

The results of this study showed that although Iran is in its initial stages in teaching this subject with new methods there are signs that it is on the right track and that it will get better in the future. The goal of the medical ethics course is to familiarize students with medical ethics principles and for the students to use the principles in their everyday experiences that require ethical decision making. Furthermore, the course aims to enable students to set up a true relationship with their patients. Medical ethics is an essential part of medicine and dentistry education programs; they must be further enabled by the implementation of more sophisticated and educated teachers. It seems to be important to change the teaching method of the medical ethics course, especially for medical students as it seems that teaching methods like small group discussion can increase students' ability in ethical decision making and their ability to recognize moral aspects of the medical field. If we have highly educated teachers in the field of medical ethics, then we will be able to use more effective methods of teaching, such as small group discussion. Another important item that requires attention is shifting the medical ethics course from the preclinical time to the clinical time of medical students' teaching programs, which is when they begin to face ethical issues in their field. Accurate evaluation methods also need to be established. These needs require collaborative team work with highly experienced and well educated teachers, who deal with the Ministry of Health and Reference Universities. Finally, we need an organized program to make recommendations about the objectives, teaching methods, content, and evaluation

methods of an ideal medical school curriculum in ethics.

Conflict of Interest

The author declares no conflict of interest.

Acknowledgement

The authors would like to thank Shahid Beheshti University of Medical Sciences, the Education Department of the School of Medicine and Dentistry, and their students for their collaborations in this project.

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