

Medical Students' and Interns' Attitudes toward Medical Ethics Education in a Thai Medical School

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ABSTRACT

Background: Medical ethics has been accepted as part of every accredited medical curriculum for the past 40 years. Medical students' attitudes have an important role for development and improvement of the curriculum. Faculty of Medicine Siriraj Hospital is the oldest and largest medical school in Thailand, and has been teaching medical ethics since 1907.

Objective: To determine attitudes among medical students and interns toward medical ethics education and understand the factors influencing their attitudes.

Methods: Mixed quantitative and qualitative research was conducted with early 6th year medical students and interns. A questionnaire was adapted from previous studies and included some original items.

Results: Of the 550 questionnaires distributed, 386 were returned (70.2% response rate). Males (n=180) made up 46.63 % of the sample. Interns (n=219, 56.74 %) tended to have more positive attitudes toward ethics learning than did medical students (n = 167, 43.26 %). Male participants tended to agree more with negative statements about ethics learning than did females. There was no statistically significant effect of hometown (Bangkok versus elsewhere) or grade point average on attitudes. The main problem cited with medical ethics education was lack of engaging methods.

Conclusion: Because clinical experience has an effect on learners' attitudes towards ethics education, medical ethics should be taught at the appropriate time and with proper techniques, such as drawing explicit ties between ethical principles and real-life situations. Attention to the more detailed aspects of these data should also facilitate improvements to curriculum content, thereby ensuring better educational outcomes.

Keywords: Medical ethics, medical students attitude, medical education, medical school

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BACKGROUND

Medical ethics has been well accepted around the world as a part of every accredited medical curriculum for the last 40 years, and is widely taught, for example, in the USA and the UK.¹ However, there are several issues to be considered before incorporating medical ethics into the curriculum, including: 1)

the purposes of medical ethics education; 2) ways of measuring outcomes; and 3) methods to provide an effective learning experience.² Content may vary from more concrete medico-legal issues, such as informed consent and confidentiality, to more abstract philosophical issues, such as patient autonomy and professionalizing medical behavior. Some issues, such as professionalism, should be integrated into the curriculum both explicitly and implicitly.

The implementation should also allow for medical students to play a part in the teaching and learning process, and for their continuous participation in the development and improvement

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of the curriculum. Feedback from the students can provide valuable information regarding the effectiveness of education, the backgrounds and beliefs of the learners, and the strategies for providing learning experiences.³ For example, an attitude study in Pakistan revealed that their medical students tended to willingly accept incentives from pharmaceutical firms.⁴ This caused concern among the faculty and led to the development of guidance regarding the relationship between physicians and pharmaceutical companies.

Overall, the medical curriculum in Thailand is a 6-year program, with the first 3 years devoted to basic science and pre-clinical knowledge, and the latter 3 years spent in clinical rotations. Faculty of Medicine Siriraj Hospital is the oldest and largest medical school in Thailand. Teaching of medical ethics was initiated in the medical school in 1907. Medical ethics is now taught throughout the undergraduate program, from pre-clinical to clinical years and in many rotations. For example, the Department of Forensic Medicine has a lecture on medical ethics and laws. The Department of Internal Medicine has arranged a counseling workshop session for medical students regarding end-of-life care. Since medical ethics has been taught on various occasions and by multiple staff members, there has been no overall evaluation of the outcome of this educational effort. This study aims to determine learners' attitudes about faculty and associated factors in medical ethics education. The results could help faculty members appropriately appraise the learners' views and implement improvements in the curriculum.

MATERIALS AND METHODS

This study used a combination of quantitative and qualitative methodologies. The first part of the research was a quantitative study that employed an author-developed, multi-session questionnaire. After analysis of the questionnaire data, a qualitative study was deployed. The recruited participants in this study were 6th year medical students in the academic year 2014/15 and medical interns who graduated in 2014. The medical students group had received all medical ethics education that the medical school provided,

while the medical graduates group also had the real-life experience in medical practice. The authors believed that both groups reflected the overall result of medical ethics education within the medical school, and that the only substantive difference lay in the clinical experience that interns were receiving in community hospital settings. All participants gave their written informed consent before completing the questionnaire and engaging in the interviews. The study protocol received approval from institutional board review (approval number Si. 064/2014).

Quantitative study

The questionnaire was developed by forming some new questions and adapting some existing items from previous studies at other institutions on attitudes towards teaching of ethics in medical school.^{5,6} The authors first validated the questionnaire by conducting a pilot study. The reliability of attitude scores, computed with Cronbach's alpha, was 0.852, which is fairly reliable. All questions were in Thai. The questionnaire comprised three parts: 1) personal data including education status, gender, religion, hometown, and Grade Point Average (GPA); 2) 20 questions to explore attitudes about medical ethics education, using a 4-point Likert rating scale where higher numbers indicate greater agreement; 3) solicitation of opinions and suggestions for curriculum improvements, such as ideas about frequently encountered ethical issues in clinical practice and which ones needed to be emphasized. Participants' opinions were also invited for each statement in part 2. An English translation of the questionnaire is provided in the supplemental material.

Statistical analysis

The Mann-Whitney U test was used to compare attitude scores of the two groups, using the mean scores as the representative data. The comparisons were made between educational status (students vs. interns), gender (male vs. female), hometown (Bangkok vs. elsewhere), and religion (Buddhism vs. others). ANOVA was used to determine whether GPA was a factor in attitude scores. All statistical analyses were performed by SPSS[®] version 18 for Windows. The criterion for statistical significance was $p < .05$.

Qualitative study

The qualitative study was conducted with focus-group interviewing. Interviews were planned to last at least 30 minutes. Contents were recorded and transcribed for thematic analysis. The aim of the interview was to explore some particular quantitative results in greater detail. The interview questions can be divided into 4 categories, as listed in Table 1.

RESULTS

Characteristics of the participants

Of the initial 550 questionnaires, 386 (70.2%) were returned. Demographic data are shown in Table 2.

Attitude scores

Of all the independent variables, educational status (medical student/graduate), and gender were the only statistically significant influences on attitudes. Religious differences were not subject to analysis owing to the over-representation of Buddhism relative to the other religions. Attitude items

with statistically significantly higher agreement from interns are shown in Table 3. All of these statements reflected positive aspects of medical ethics education. In contrast, gender comparisons revealed that male participants agreed more with certain negative attitudes toward medical ethics education than did females, as shown in Table 4.

Suggestions from questionnaires

In part 3 of the questionnaire, titled 'Results of Ethics Education', participants were asked to score the top 3: skills they gained after medical ethics education; ethical principles they used most; and ethical principles they felt needed to be taught more. A score of 3 represented the top skill or principle; 2 represented the next skill or principle; and 1 represented the final skill or principle in the top 3. Scores for each item were summed, then divided by the scores for all items in the score category to arrive at a percentage score for each item. Table 5 shows the percentage scores for the 3 top-scoring items in each category.

TABLE 1. The focus-group interview questions.

Category	Interview question
<i>Current status of medical ethics education</i>	<ul style="list-style-type: none">- What is the most interesting topic in medical ethics education?- What is your opinion regarding current medical ethics education at our institution?- Do you think the content of the medical ethics curriculum is too much, or otherwise inappropriate?- What is currently problematic in medical ethics education?- What would you change/do if you were assigned to be program director of medical ethics?
<i>Teaching and learning methods</i>	<ul style="list-style-type: none">- Which type of learning experience do you prefer for medical ethics education?- Which educational year is the appropriate period to teach medical ethics?- Can you learn medical ethics from in-service residents and staff?
<i>Result of medical ethics education</i>	<ul style="list-style-type: none">- Do you think medical ethics education can really make a "good" doctor?- How can you apply ethical principles to daily practice?
<i>Specific attitudes about medical ethics education</i>	<ul style="list-style-type: none">- Is it true that common sense alone can be used to resolve issues in medical ethics?- Is it true that some medical ethics principles conflict with religious beliefs?

Interview answers

The focused-group interview was conducted in 4 groups: 1) male medical students; 2) female medical students; 3) male interns; and 4) female interns. The grouping method was based on the results of the quantitative study, which showed that educational status and gender were two factors associated with differences in attitude scores. Each interview group contained 4-5 participants randomly selected and approached by one of authors (SS) for participation. Before

the interview started, the participants gave their written informed consent and assured that their information would be kept confidential and that the comments given during the interview would not affect their education.

Current status of medical ethics education

Most of the participants were impressed and inspired by the counseling workshop session on end-of-life or palliative care and also the counseling practice on breaking bad news and truth-telling. A participant in the male intern group commented, *“I really liked the palliative care session held by the Department of Medicine.”* However, many participants thought that medical students had very scarce opportunities to interact with real patients during the counseling session. This was considered a drawback in medical ethics education because of the lack of participation with the team.

Many agreed that ethical issues in clinical practice were very interesting. Both female groups agreed that the content being taught was adequate, while the male groups had more diverse opinions, varying from “inadequate” to “too much.” Some participants thought there was a lack of adequate interaction between the lecturer and the students.

Teaching and learning method

Many students had responded on the questionnaires that lecture sessions are still needed as a learning method. The participants in the interview

TABLE 2. Demographic data of participants.

Category	Number (%) N = 386
Educational status	
Medical student	219 (56.74 %)
Intern	167 (43.26 %)
Gender	
Male	180 (46.63 %)
Female	206 (53.37 %)
Religion	
Buddhist	375 (97.15 %)
Christian	7 (1.82 %)
Atheist	3 (0.78 %)
Muslim	0 (%)
No answer	1 (0.26 %)
Hometown	
Bangkok	240 (62.18 %)
Outside Bangkok	140 (36.27 %)
No answer	6 (1.55 %)

TABLE 3. Attitudes that produced greater agreement from interns than from medical students.

Attitude Statement	Mean Agreement	
	Interns	Students
Medical ethics classes are interesting	2.85	2.54
The faculty should arrange more classes in medical ethics	2.60	2.28
I can learn medical ethics by observing hospital staff and residents during ward rounds and services in the outpatient department	3.28	3.05
I have improved my understanding in medical ethics after each clinical rotation	2.95	2.76
Medical ethics education enables me to solve the ethical dilemmas of real life	2.95	2.69
Medical ethics education is necessary and should be taught in all clinical rotations	2.72	2.39
Medical ethics education can make a medical student into a good physician	2.96	2.73
Medical ethics education can bring medical students success in learning and in their future careers	3.04	2.79

Note: $p < 0.01$ by Mann–Whitney *U* test for all comparisons.

sessions suggested that lectures could be used to provide concept and basic knowledge about ethics. Additionally, they felt that case discussion and role-play clarified understanding and revealed ways to apply ethical principles in daily practice. Participants agreed that ethics should be taught early in pre-clinical years, but stipulated that it must be relevant and objective enough for the pre-clinical student to understand.

Results of medical ethics education

When asked about the results of medical ethics education, many agreed that it may not change doctors’ attitudes or behaviors, but at least it can increase their awareness of ethical issues. Many participants voiced some variant of the idea that *“Even though they know what’s right or wrong, it’s up to them to decide what to do.”*

Many participants expressed concern about morality in medical students and physicians, and

felt the medical school should pay more attention to evaluation in this area. A male medical student participant told us that *“The faculty should be stricter with many students’ behavior by imposing some ethical benchmarks, because a lot of people who are doing the right thing are very uncomfortable [about those who are not].”*

Specific attitudes about medical ethics education

Many participants agreed that medical ethics should be taught even though common sense could be used in “some” situations. Despite the common belief that mere common sense can resolve ethical issues, all participants disagreed with this statement. One participant also said that *“Many people do not have common sense.”*

While most interviewees identified themselves as Buddhists, they did not see any conflict between their religious belief and ethical principles such as end-of-life care. A participant in the

TABLE 4. Attitudes that produced greater agreement from male than from female participants ($p < 0.01$ by Mann–Whitney U test for all comparisons).

Attitude Statement	Mean Agreement	
	Males	Females
Solving ethical dilemmas requires organized knowledge because common sense alone is not adequate	2.84	2.63
Medical ethics education is no use in application for residency training	2.26	1.89
Malpractice claims are the result of medical negligence; ethics of the physician are not a significant factor	2.17	1.92
Medical knowledge is the only thing necessary for patient care, not ethics	1.97	1.67

Note: $p < 0.01$ by Mann–Whitney U test for all comparisons.

TABLE 5. Opinions on the results of medical ethics education.

	Percentage
Top skills gained after medical ethics education	
Moral/ethical judgment	28.3
Ethical issue detection/recognition/awareness	28.1
Moral reasoning	24.2
Ethical principles used most	
Informed consent	25.5
Beneficence and non-maleficence	19.2
Confidentiality	16.9
Ethical principles that needed to be taught more	
End-of-life care	20.1
Informed consent	20.0
Beneficence and non-maleficence	13.5

male student group said, *“It’s okay to perform an abortion, but only if the law tells you to do so.”* A Muslim also expressed the same idea. Abortion in particular was deemed acceptable, when performed in accordance with legal regulations.

DISCUSSION

Previous studies have typically explored students’ perceptions or attitudes about specific issues in medical ethics such as end-of-life care,⁷ the doctor–patient relationship,⁸ or ethical dilemmas during clerkship.⁹ This study focused on attitudes toward medical ethics education in Faculty of Medicine Siriraj Hospital, a university teaching hospital in Thailand.

The participants in the intern group felt that the ethics classes were interesting and should be taught in more detail. This more positive attitude may reflect the effects of clinical experience they had received in real workplace situations. The transition from medical student to health care provider is a major change in life. Accountability in professional practice forces these junior physicians to increase their levels of maturity. With greater maturity, they may realize greater recognition of the importance of medical ethics.

Shelp et al¹⁰ surveyed medical students regarding the medical school curriculum and also found that clinical year students had a greater desire to learn more about medical ethics. Sulmasy et al¹¹ also pointed out that Jewish interns who were older and had more life experience tended to have better knowledge in medical ethics compared with those who went straight through college. These two studies point out that students with more life experience are more likely to give their attention to ethics education.

Providing the intense ethics education in clinical years may also help the students to achieve proper moral values. Satterwhite et al¹² suggested that exposure to unethical clinical conduct may cause the students to change their values. An interesting study by Feudtner et al in 1994¹³ revealed that students who had experienced or witnessed unethical conduct tended to behave improperly themselves for fear of poor evaluation and to fit in with the team.

This study found that gender was also a contributory factor in attitudes. There were three statements with which the male participants agreed more than did the females. These statements related to ethics and residency training, ethics and malpractice claims, and medical knowledge being more important than ethics. Even though the group interview sessions could not confirm gender differences or other explanations, the information suggested that small-group sessions in ethics classes should have equal ratios of male to female members in each group. This class setup would allow the students to have similar experiences in case discussions and would decrease bias from gender variation between groups. A study by Price et al¹⁴ also reported a difference in professional attitude between males and females, with females tending to be more “caring.”

Improper teaching methods can lead to resistance in the learning process. In this study, many medical students still preferred lectures as the way of providing factual knowledge, however, the great challenge lies in making lectures engaging and conducive to two-way communication. Shorr et al¹⁵ showed that ethics education had very little effect on first-year medical students, even with the clinical vignette provided. This may suggest that the timing in teaching ethics should be appropriate and not forced.

Content in ethics education

Informed consent is the most widely applied ethical issue according to our participants, followed by beneficence and confidentiality, while end-of-life care is the topic that requires increased learning experience. This reflects the general practitioner’s concern for practicing palliative care. Even though end-stage disease is not commonly encountered in daily practice, both medical students and interns felt the need to receive more learning experience in this area. This aligns well with the current situation in Thailand, where palliative care knowledge among general practitioners is under-developed. Many physicians still argue about laws concerning palliative care practice in end-stage patients.

Christakis and Feudtner¹⁶ suggested that ethical education should focus on medical

students' situations because the medical student has a unique role in the health care team. Their study concluded that the recurring dilemmas are: 1) the student's pursuit of experience; 2) differing degrees of knowledge and ignorance among team members; and 3) ways to deal with disagreement within the hierarchical authority structure of the medical team. Clinical vignettes that pose these issues for consideration could be useful in engaging attendees because of their relevance to their real-life situations.

Limitations and further studies

This study was limited by its inclusion of only early 6th year medical students and interns. Differences in attitudes between pre-clinical and clinical year students or even between 4th and 5th year students could also exist. Further studies should also focus more on the ethical dilemmas those students encounter during their clinical years. Case discussions regarding real-life situations could be intriguing and challenging for students.

CONCLUSION

The strength of this study is that it evaluated the attitudes of final-year medical students about to graduate and of recent graduates. The data revealed that clinical experience has an influence on attitudes toward medical ethics education. Gender is also an influencing factor. Many students thought that medical ethics classes are unattractive because they could not see the relevance of ethical theory to clinical practice. The ethics education strategy gained from this study is to teach ethics at the appropriate time and with the proper techniques. Faculties should therefore increase interactive sessions and decrease lectures to the extent possible.

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