Case-Based Teaching of Ethics: Ethical Challenges Raised by Undergraduate Medical Students during a Bioethics Course (What Students Bring to the Classroom?)

Nada Alyousefi, Jamal Jarallah, Nora Alrowais

Department of Family and Community Medicine, College of Medicine, King Saud University (KSU), Riyadh, Saudi Arabia
Email: nalyousefi@ksu.edu.sa, jaljarallah@gmail.com, nrowais@KSU.EDU.SA

Abstract

Teaching ethics for undergraduate medical students provides an excellent opportunity to equip them with essential skills to deal with ethical dilemmas that they may face in their future career. Teaching bioethics is challenging for clinical teachers. The current study reports on one of the assignments in which the students present a real case with analysis of the relevant ethical issues. Each student registered in ethics course writes a report analyzing an ethical case. The report was carefully read and the most prominent three ethical issues in the incident were identified, any related additional comments or details were noted. The data collection forms were analyzed using SPSS version 22. About half of the incidents (49%) occurred in government hospitals. Of the total incidents, most of the incidents occurred in the outpatient care (42.9%), inpatient care (22.7%), and emergency room (20.6%). About one third of the cases were related to patient autonomy and choice (30.4%), followed by confidentiality and privacy issues (21.1%). Informed consent represented 8%, medical errors (6.1%), necessity issues (4.9%), abortion (4.5%) and professionalism (4%). Students were able to recognize the ethical issues in the cases, which indirectly reflected their ethical sensitivity. They were able to utilize the ethical principles they learned during the course and apply these principles. They were able to recognize, analyze, and criticize unethical and unprofessional behaviors of their own clinical teachers. Students experiences with ethical issues reflected in the cases are important and beneficial.

Keywords

1. Introduction

Teaching ethics for undergraduate medical students provides an excellent opportunity to equip future physicians with essential skills to deal with ethical dilemmas that they may face in their professional career.

Traditionally, medical ethics is taught as a didactic subject through lectures and seminars (Alkabba et al., 2013). Recently, it has been realized that teaching ethics will be more appealing if taught in a learner-centered format (Loike et al., 2013; Mills & Bryden, 2010). Based on this idea, several methods have been used for teaching ethics to medical students in attempts to motivate students and engage them in the learning process. These methods include, but not limited to the following: problem based learning and small group discussion (Heidari et al., 2013), case based learning (Williams, 2005; Loewy, 1986; This Tlethwaite et al., 2012; Osborne & Martin, 1989; Fasser et al., 2007; Huijer et al., 2000), team-based learning (Chung et al., 2009), using films and web-based discussion (Self et al., 1993; Halkoaho et al., 2013) and standardized patients (Edingar et al., 1999). All these methods have focused on helping students to learn ethical reasoning and resolution of ethical issues and dilemmas, mostly based on discussion of cases. These methods have shown variable degrees of success. Case-based learning has been found to be more exciting, more enjoyable and more encouraging for students to ask relevant questions (Williams, 2005). This method has also been found to be more enjoyable by the teachers (Loewy, 1986). However, a systematic review was inconclusive about the effectiveness of the case-based teaching (This Tlethwaite et al., 2012), but was perceived to motivate students. In any case, some studies have shown that discussion of student-driven cases when discussed in small group sessions, have highlighted the personal values of the participants, and added more vitality to the teaching sessions (Osborne & Martin, 1989; Christakis & Feudtner, 1993).

At King Saud University, college of Medicine, medical ethics is being taught for about three decades (Aldughaither et al., 2012). It is now taught for the third year students in the form of didactic, case-based lectures, case-based group discussions, and student assignments. The current study reports on one of the assignments in which the students present a real case with analysis of the relevant ethical issues.

1.1. Teaching Bioethics for Undergraduate Students

The current ethics course is taught to third year medical (first year clinical) students at the College of Medicine King Saud University. The course objectives are to inculcate in medical graduates the ability to identify and explain the principles of bioethics and how to balance the application of these principles in practice, provide justifications and reasons for their decisions in ethical issues; to understand the basics of the Saudi code of conduct and Law; to identify harms and benefits in health care settings, recognize the importance of informed consent, patient privacy and confidentiality; Identify the concept of conflict of interest and how to deal with pharmaceutical and health related industrial companies, and to know the concept of medical negligence and how it is dealt with within the kingdom of Saudi Arabia. The emphasis in accomplishing all these objectives is on the Islamic basis of medical ethics in comparison with the Western ethical system.

1.2. Methods of Teaching the Course

The course is planned in such a way that students are given a lecture in a one hour session per week, followed by a case-based tutorial (practical session) in the week after. During the practical session, the students are divided into small groups within the same classroom and each group is presented with a case using the ethical analysis framework; each group analyzes the case and presents its analysis to the large group. In each session, they analyze between three and five cases. A general discussion of the cases by the tutor then follows, and students' questions are answered. These sessions do not carry any weight age in the assessment of the students, but they learn from this experience through interaction with their colleagues and with the tutor. During these sessions, cases are given to the students with different ethical dilemmas and issues in order to enable them to pick up the relevant ethical issues in the different cases. The topics include principles of medical ethics and most common bioethical issues (Table 1). All the materials of the course and students assessment are posted on an electronic learning system (blackboard), which is accessible to the students and teaching staff during the course.

1.3. Assessment

In order to achieve the objectives of the course, the students are assessed using a variety of methods. Summative

Table 1. The contents of the course.

Importance of learning medical ethics

Ethical theories (Western) and principles

How to analyze ethical cases?

Islamic principles of medical ethics

Comparison between Islamic and western medical ethics principles

Patient autonomy, informed consent, and patients rights

Islamic medical jurisprudence (Feqeh) in illness

Beneficence, necessity, and social justice

Confidentiality and privacy

Medical errors and the Saudi code of conduct

Brain death, organ donation and transplantation

End of life issues

Beginning of life issues

Conflict of interest in dealing with pharmaceutical and medical industry

assessment include Mid-term exam in the form of multiple choice questions with scenarios of ethical issues, using the single best answer format.

The Formative assessment includes different case-based assignments: The report should identify the ethical issues and principles involved, provide an analysis of the issue and provide possible solution for the resolution of the dilemma presented.

In the second assignment, Students are expected to individually present a clinical case they encountered during their clerkship which involves ethical issues, and to prepare a written analysis about the case. The written document is assessed based on Identifying and presenting the ethical issue/principles involved, and deciding on what could be done to resolve the issue and what could be done to avoid such a dilemma in the future. The students are expected to prepare an audiovisual presentation to be presented in the large group. The presentation is assessed based on the following steps: Submission of material on time, design of presentation in a scientific and interesting form and coverage of all important aspects and presentation skills.

This assignment is given to encourage the student to reflect on what had been learned and its application to the real world. Asking students to narrate situations of ethical difficulty is expected to be helpful i.e. "by telling stories involving ethically difficult situations evoking feelings of having a troubled conscience, it is possible to access the ethical thinking below the surface and bring it into the open for further consideration and reflection at student level" (Grönlund et al., 2011).

2. Methods

In the year 2012-2013, 247 students in the third year registered in this course; 105 female and 142 male students. All of them live in Riyadh, the capital city of Saudi Arabia. Their mean age was 23 years. All the students submitted reports of the cases they selected to analyze, and upload on the blackboard (i.e. learning management system). The report included the case scenario, ethical analysis of the case and details on how he or she would resolve the ethical dilemma.

A data collection sheet was designed and tested by pilot study. Each student report was carefully read by one member of the faculty and using the data collection form which included information on the place of Incident (Hospital "Government, Private", Health centre and Others), site of incident (Emergency Room, Inpatient, Outpatient, Critical Care) etc. For each case the most prominent three ethical issues in the incident were identified, any related additional comments or details were noted. The form also includes a list of categories of ethical issues that may emerge in the cases and the faculty would decide on the category and put a tick on the appropriate category. Examples of the categories are the following: informed consent, disclosure, confidentiality/privacy, conflict of interest, physician refusal to treat, patient autonomy/choice, withdrawing treatment, withholding treat-

ment, others end of life issues, abortion, IVF, contraception, genetics, others reproduction issues, faqah issues from Islamic jurisprudence (purification, prayer and fasting), examination of opposite sex, treating adults who lack capacity, research ethics, cosmetic surgery, relationship with medical industry, organ donation/transplant, management of health records, prescribing and administering medication, necessity, medical errors, communication skills and professionalism.

The data collection forms were analyzed using SPSS version 22. To validate the analysis, we double-analyzed and compared approximately cases and found little difference which we think will not affect the results. Descriptive analysis was carried out for all the data. Ethical approval was obtained from the Institutional Review Board of the College of Medicine at King Saud University.

3. Results

3.1. Place and Site of Incidents

Table 2 shows that about half of the incidents (49%) reported by students, occurred in government hospitals. Of the total incidents most of the incidents occurred in the outpatient care (42.9%), followed by inpatient care (22.7%), and emergency room (20.6%).

3.2. Ethical Issues

As shown in Table 3, about one third of the cases were related to patient autonomy and choice (30.4%), followed by confidentiality and privacy issues (21.1%). Informed consent represented 8%, medical errors (6.1%), necessity issues (4.9%), abortion (4.5%) and professionalism (4%).

3.3. Details of the Ethical Issues

Further analysis of the cases has shown a wide range of ethical issues as follows.

3.4. Patient Autonomy and Choices

Of the 75 cases related to these issues, 14 cases were about non-disclosure of information to patient and or their relatives, either intentionally, or by the request of the relatives. On the contrary, there were 5 cases in which inappropriate (e.g. blunt…) disclosure was the problem. In these cases, the information was given to the patient/ and, or, his relatives without any preparation.

Seven of the cases were related to inappropriate prioritization in seeing patients. For example, the doctor either unnecessarily spent more time with one patient, keeping other patients waiting for a long time, or the doctor would see a known patient or a relative without appointment, and with no consideration for the waiting patients.

3.5. Unprofessional Behaviors

There were many unprofessional behaviors in the details of the cases, which could not be categorized in specific

Table 2. Place of incident/site of incident.

	In patient care		Emergency room		Outpatient care		Operation room		Critical care		Others		Total
	No	(%)	No	(%)	No	(%)	No	(%)	No	(%)	No	(%)	No (%)
Government hospital	40	(33.1)	34	(28.1)	34	(28.1)	5	(4.1)	4	(3.3)	4	(3.3)	121 (49)
Private hospital	1	(4.2)	2	(8.3)	17	(70.8)	4	(16.7)	0	(0)	0	(0)	24 (4.7)
Primary care setting	0	(0)	1	(16.7)	5	(83.3)	0	(0)	0	(0)	0	(0)	6 (2.41)
Not specified	15	(17.8)	14	(16.7)	50	(59.5)	2	(2.4)	2	(2.4)	2	(2.4)	84 (34)
Others	0	(0	0	(0)	0	(0)	0	(0)	0	(0)	12	(100)	12 (4.9)
Total	56	(22.7)	51	(20.6)	106	(42.9)	11	(4.5)	6	(2.4)	17	(6.9)	247 (100)

Table 3. Ethical issues found in the cases presented by students.

Issues	No	(%)
Patient autonomy choice	75	(30.4)
Confidentiality privacy	52	(21.1)
Informed consent	20	(8.1)
Medical errors	15	(6.1)
Necessity	12	(4.9)
Abortion	11	(4.5)
Professionalism	10	(4.0)
Research ethics	9	(3.6)
Physician refusal to treat	6	(2.4)
Conflict of interest	5	(2.0)
Management of health	3	(1.2)
Organ donation/transplant	2	(0.8)
Prescribing and administering medication	1	(0.4)
In vitro fertilization	1	(0.4)
Total	247	(100.0)

categories, because they were found to be scattered. Examples of these are: miscommunicating with patients, humiliating patients, inappropriate response to patient refusal of treatment, accepting relative interference inappropriately with the treatment plan, requesting unnecessary investigations in the private sector, conflict of interest (referring patient to own private clinic), illegal access to medical records by students, refusal of reasonable patient request, and disrespect of patients in the clinical setting and during clinical teaching. Also, there were incidents where doctors refused to treat patients with infectious diseases, like the HIV infection or hepatitis.

As regards to confidentiality issues it was mainly related to inappropriate discussion of patient's details in public or breaching patients related confidential information to family members. Some examples of cases reported by students are available in **Appendix 1**.

4. Discussion

The importance of listening to medical student's experience when teaching medical ethics was emphasized in a previous study (Osborne & Martin, 1989). It was found that this deepened the students' understanding of the ethical principles, as it related to practice, and explored more personal issues as well (Osborne & Martin, 1989).

In the current study, we analyzed the cases presented by medical students during a course of medical ethics. It is clear from this analysis that students experiences with ethical issues reflected in the cases are important and beneficial. It is important, because the cases presented cover a lot of ground in ethics in a practical way. It is beneficial for learning in our vision, although, most of the issues presented are taught during the lectures and tutorials, presentation of cases that the students themselves experienced, witnessed and heard about, added more depth to their understanding of the ethical principles, issues, and analysis. It helps them to think critically about ethical principles as they apply it on a living example. Bridging the gap between theory and practice is important in learning ethics, as real life experiences are expected to help students to reflect in action as well as on action to deepen their understanding and self directed learning of the ethical issues.

Reviewing the students' analysis of the cases, it was found that they were able to recognize the ethical issues in the cases, which indirectly reflected their ethical sensitivity. Also, the majority of the students were able to utilize the ethical principles they learned during the course and apply these principles for the analyses of the cases.

Our observation during this process of learning was that the students were interested, and appeared engaged in the course. Engaging student in the learning process, using case based method and being a team player was found, form student's perspectives, to be more enjoyable, more motivating and more encouraging to ask ques-

tions (Huijer et al., 2000).

The students were able to recognize, analyze, and criticize unethical and unprofessional behaviors of their own clinical teachers. For example, cases were reported about clinical teachers who did not respect patients and their waiting time, were inappropriately responding to patients or relatives request, opinions, or choices, and exhibited other unprofessional behavior. On one hand; it is good that students could recognize the ethical issues and criticize the behavior of some of their clinical teachers, but on the other hand, it is worrisome that teachers, who are supposed to be role-models for the students are behaving in an unprofessional and unethical way. Learning climate should be conducive for learning professionalism and ethical behavior. It is the responsibility of the teaching institutions to make sure that teachers are role models for their students, if they want to graduate competent doctors with appropriate ethical standards.

It is noteworthy that most of the cases presented by students are mainly related to doctor-patient relationship and professionalism issues. Issues such as end-of-life related issues, brain death, assisted reproduction, DNR, and the like, were reported less frequently than other issues. This is excepted, since medical student have less experience with these issues, and it is possible that the difficulty in presenting and analyzing these issues may have deterred students from choosing them for presentation.

Teaching bioethics is still challenging for clinical teachers. Students experiences with ethical issues reflected in the cases are important and beneficial but further research should be done to propose and establish better teaching modules and assessment methods especially with large number of students.

References

Aldughaither, S. K., AlMaziyad, M. A., Alsultan, A. O., AlMasaud, A. O., AlDakkan, A. S., Alyahya, B.M. et al. (2012). Student Perspectives on a Course on Medical Ethics. *Journal of Taibah University Medical Science, 7,* 113-116. http://dx.doi.org/10.1016/j.jtumed.2012.11.002

Alkabba, A. F., Hussein, G. M., Kasule, O. H., Jarallah, J., Alrukban, M., & Alrashid, A. (2013). Teaching and Evaluation Methods of Medical Ethics in the Saudi Public Medical Colleges: Cross-Sectional Questionnaire Study. *BMC Medical Education, 13,* 122. http://dx.doi.org/10.1186/1472-6920-13-122

Christakis, D. A., & Feudtner, C. (1993). Ethics in a Short White Coat: The Ethical Dilemmas that Medical Students Confront. *Academic Medicine, 68,* 249-254. http://dx.doi.org/10.1097/00001888-199304000-00003

Chung, E., Rhee, J., Baik, Y., & OH-Sun, A. (2009). The Effect of Team-Based Learning in Medical Ethics Education. *Medical Teacher, 31,* 1013-1017. http://dx.doi.org/10.3109/01421590802590553

Edingar, W., Robertson, J., Skeal, J., & Schoonmaker, J. (1999). Using Standardized Patients to Teach Medical Ethics. *Medical Education Online*, 4.4

Fasser, C., McGuire, A., Erdman, K., Nadalo, D., & Scott Sand Waters, V. (2007). The Ethics Work Up: A Case-Based Approach to Ethical Decision-Making Instruction. *Journal of Physician Assistant Education, 18,* 34-41.

Grönlund, C. E., Dahlqvist, V., & Söderberg, A. I. (2011). Feeling Trapped and Being Torn: Physicians' Narratives about Ethical Dilemmas in Hemodialysis Care that Evoke a Troubled Conscience. *BMC Med Ethics, 12,* 8. http://dx.doi.org/10.1186/1472-6939-12-8

Halkoaho, A., Matveinen, M., Leinonen, V., Luto, K., & Keranen, T. (2013). Education of Research Ethics for Clinical Investigators with Moodle Tool. *BMC Medical Ethics, 14,* 53.

Heidari, A., Adil, S. H., Taziki, S. A., Akbari, V., Ghadir, M. R. et al. (2013). Teaching Medical Ethics: Problem-Based Learning or Small Group Discussion. *Journal of Medical Ethics and History of Medicine, 6,* 1.

Huijer, M., Leeuwen, E. V., Boenink, A., & Kimsma, G. (2000). Medical Students' Cases as an Emperial Basis for Teaching Clinical Ethics. *Academic Medicine, 75,* 834-839.

Loewy, E. H. (1986). Teaching Medical Ethics to Medical Students. *Journal of Medical Ethics, 61,* 661-665.

Loike, J. D., Rush, B. S., Schweber, A., & Fischbach, R. L. (2013). Lessons Learned from Undergraduate Students in Designing a Science-Based Course in Bioethics. *CBE-Life Science Education, 12,* 701-710. http://dx.doi.org/10.1187/cbe.13-01-0012

Mills, S., & Bryden, D. C. (2010). A Practical Approach to Teaching Medical Ethics. *Journal of Medical Ethics,* **36**, 50-54. http://dx.doi.org/10.1136/jme.2009.031153

Osborne, L. W., & Martin, C. M. (1989). The Importance of Listening to Medical Students' Experiences when Teaching Medical Ethics. *Journal of Medical Ethics, 15,* 35-38. http://dx.doi.org/10.1136/jme.15.1.35

Self, D. J., Baldwin, D. C., & Olivare, Z. M. (1993). Teaching Medical Ethics to First-Year Students by Using Films Discus-

sion to Develop Their Moral Reasoning. *Academic Medicine, 68,* 383-385.

This Tlethwaite, J. E., Davies, D., Ekeocha, S., Kidd, J. M., Macadougall, C., Matthews, P. et al. (2012). The Effectiveness of Case-Based Learning in Health Professional Education. ABEME Systematic Review: BEME Guide No. 23. *Medical Teacher, 34,* e421-e444.

Williams, B. (2005). Case Based Learning—A Review of the Literature: Is There Scope for This Educational Paradigm in Prehospital Education? *Emergency Medicine Journal, 22,* 577-581. http://dx.doi.org/10.1136/emj.2004.022707

Appendix 1. Examples of Cases Reported by Students

• A young female patient, who refused to have vaginal examination in the presence of medical students was threatened not to be treated. (privacy, autonomy, choice, necessity)

• A surgeon was called to the emergency room to see a victim of a road traffic accident, suspected to have spleen is rupture, refused to continue caring for the patient who was suspected to be HIV positive. (Professionalism, nonmaleficence)

• In a social gathering, some medical students were talking about a well known social figure as having a sexually transmitted disease. (Confidentiality)

• A medical doctor was insisting that a patient should only take specific brand of medication from a specific pharmacy. It was found that the doctor had a special relationship with the pharmaceutical company providing that medication. (Professionalism, conflict of interest)

• A 62-year-old woman was diagnosed to have colon cancer in its early stages. Her son insisted that she should not be informed. (Breaking Bad News)