

## Teaching and Learning Medical Ethics: How to Bring Positive Change

Nurunnabi ASM<sup>1</sup>, Hasan MJ<sup>2</sup>, Quddus ASMR<sup>3</sup>, Khan MTI<sup>4</sup>, Sultan MT<sup>5</sup>, Sharmin S<sup>6</sup>, Rahman MM<sup>7</sup>, Tripura KK<sup>8</sup>, Alamgir SN<sup>9</sup>

### Abstract

Decision making in healthcare does not depend only on mastery of knowledge, clinical skills, and technical competencies, rather it is largely influenced by ethical competences of the physicians. Teaching medical ethics in undergraduate medical education (MBBS programme in Bangladesh) helps medical students recognize the importance of being sensitive to ethical issues within everyday clinical practice and develop in them the ability to effectively address the concerns of patients and families, as well as participants in health research and larger society. In medical practice, its ethical component is treated as an obligatory one, no matter what the specialty is. The importance of ethics in medicine is increasing greatly day by day; its dimensions are also changing. In this review paper, we have tried to discuss some effective changes in medical ethics curriculum, methods of teaching and learning, faculty development, and institutional culture. All stakeholders should think about it and take necessary actions into that direction, which will ultimately lead to building a more ethical, more patient-centred, more professional medical community in the country.

CBMJ 2022 July: vol. 11 no. 02 P: 167-175

**Keywords:** Medical ethics, professionalism, teaching and learning, MBBS curriculum, medical education

### Introduction

Optimum knowledge and clinical skills, good communication skills, and sound understanding of ethics constitute the foundation of professionalism in medicine.<sup>1</sup> Decision making in healthcare does not depend only on mastery of knowledge, clinical skills, and technical competencies of the physicians, rather it is largely influenced by ethical competences of the physicians.<sup>2,3</sup> Hence, inclusion of medical ethics and professionalism in MBBS curriculum help medical students recognize the importance of being sensitive to ethical issues within everyday clinical practice and develop in them the ability to effectively address the concerns of patients and families, as well as participants in health research and larger society.<sup>2</sup> In medical practice, its ethical component is treated as an obligatory one, no matter what the specialty is. The importance of ethics in medicine is increasing greatly day by day; its dimensions are also changing. The importance of knowing medical ethics is very relevant to all medical professionals due to various reasons, including promoting

1. Dr. Abu Sadat Mohammad Nurunnabi, Assistant Professor, Department of Anatomy, OSD, Directorate General of Health Services (DGHS), Dhaka-1212.
2. Dr. Mahmud Javed Hasan, Associate Professor & Head, Department of Nephrology, Community Based Medical College, Bangladesh, Winnerpar, Mymensingh-2200.
3. Dr. A.S.M. Ruhul Quddus, Professor, Department of Paediatrics, Community Based Medical College, Bangladesh, Winnerpar, Mymensingh-2200.
4. Dr. Md. Tariqul Islam Khan, Medical Officer, Department of Cardiology, Mymensingh Medical College Hospital, Mymensingh-2206.
5. Dr. Mohammad Tipu Sultan, Medical Officer, Department of Forensic Medicine & Toxicology, Dhaka Medical College, Dhaka-1000.
6. Dr. Saïda Sharmin, Assistant Professor, Department of Community Medicine, International Medical College, Tongi, Gazipur-1711.
7. Dr. Md. Mahfuzur Rahman, Assistant Professor, Department of Neurotrauma Surgery, National Institute of Neurosciences & Hospital, Dhaka-1207.
8. Dr. Kaminee Kumar Tripura, Assistant Professor, Department of Otorhinolaryngology, President Abdul Hamid Medical College & Hospital, Kishoreganj-2300.
9. Dr. Sadia Nusrat Alamgir, Junior Consultant (Obstetrics & Gynaecology), Sheikh Hasina National Institute of Burn and Plastic Surgery, Dhaka-1000.

**Address of Correspondence:**  
Email: shekhor19@yahoo.com

professionalism, increasing litigation, changes in complexities in medical practice and the importance of consumer courts.<sup>2,4,5</sup> Hence, preparing today's medical students, who are going to be tomorrow's doctors, to become responsible, ethical and independent decision makers to act on the best interest of their patients is the core element of medical education.<sup>3</sup> In several research, the importance of medical ethics education have been discussed,<sup>6-8</sup> which is also crucial for a developing country like Bangladesh.

Now, what are the best practices for teaching medical ethics to the medical students? Medical educators have already discussed more and more options than what we think or practice in our current standards.<sup>9-12</sup> However, there is lack of discussion and dialogues among medical educators of the country about improvising teaching and learning medical ethics. Hence, we have written this review paper to discuss some innovative and effective changes in teaching and learning medical ethics which are applicable in our medical colleges.

### **Where are we standing now?**

With advances in modern medicine the code of ethics has become a fundamental guide that regulates exercises of qualified medical professions. It includes the Hippocratic Oath, WMA Declaration of Geneva and code of ethics compiled by the governing medical authority of the particular country, e.g., Bangladesh Medical and Dental Council has Code of Medical Ethics.<sup>13-15</sup>

In addition, the four fundamental principles of medical ethics – autonomy, beneficence, non-maleficence and justice, as proposed by Beauchamp and Childress in 1979, have been

considered the standard framework to analyze ethical situations arising during the practice of medicine.<sup>16</sup> For clinical or basic research on human participants, World Medical Association Declaration of Helsinki is applicable.<sup>17</sup>

MBBS is a 5-year undergraduate medical program under Faculty of Medicine of different universities of Bangladesh. The medium instruction is English; however, patient interaction is mostly in the local language. The MBBS programme is delivered through a phase-wise approach: first one and half basic-science years (Phase-I) and next 2 years for para-clinical sciences (Phase-II and III) and final one and half years solely devoted to clinical subjects (Phase-IV). However, discipline-based clinical ward placement starts from the Phase-II.<sup>18</sup> Clinical rotations, where students interact with patients, commence at the start of 3rd year. In MBBS programme of Bangladesh, in Phase-II, practically the sole responsible department is forensic medicine<sup>18,19</sup> that teach the medical students some of the valuable topics of medical ethics and professionalism which include but not limited to history and evolution of medical ethics, consent, medicolegal procedure, medical negligence, malpractice, and other professional matters. Besides, assigned teaching for the Behavioural Science (attention to doctor-patient relationship) in Community Medicine is also available, which is very short to cover relevant ethics information elaborately.<sup>18</sup> However, medical students also get some of the practical exposure to medical ethics training while having their clinical teaching in the hospital wards and operation theatres, e.g., bed-side procedure, taking permission for physical examination, privacy and confidentiality, written informed

consent, clinical decision-making involving patient and family, palliative care, death declaration, etc.<sup>7,9</sup>

In recent times, several literature suggested to modify and improvise the MBBS curriculum focusing on updating medical ethics education at undergraduate level.<sup>19-21</sup> The reasons behind are: negative impressions about physicians in the society, declining mutual respect in doctor-patient relationship, compromised quality and competence of overall medical education as well as physicians, emergence of more and more ethical dilemma due to modern technologies and modalities in diagnosis and treatment of diseases and many more.<sup>19-24</sup>

There is no recognized postgraduate education in medical ethics in the country; even any formal academic degree/qualification on medical ethics/bioethics received from abroad has not gained any recognition from BM&DC as additional qualification for the physicians engaged in medical teaching or practice. It may be mentioned that among the medical teachers of the country, only two have received formal postgraduate education on medical ethics/bioethics (Erasmus Mundus Master of Bioethics) through scholarships given by the European Commission to date. However, many of them have received formal or informal professional training on medical ethics or research ethics in home and abroad.

### **What are the changes expected in current medical education?**

We have highlighted some of the expert-driven concepts and recommendations to improvise our current medical ethics education both in theoretical and practical formats.

### **1. In medical curriculum:**

Formal instructions in medical ethics and professionalism are being increasingly integrated into medical curricula across the globe.<sup>25,26</sup> Developing curriculum pertaining to ethics and professionalism is an intensive task, which needs to be “delivered explicitly throughout the course of medical education, with more-complex subjects being introduced along the educational process”.<sup>25</sup>

In our proposition, the responsible or leading department may be forensic medicine, or the medical education unit. However, a multidisciplinary team approach can be adopted as well.<sup>1,9,27</sup> One important thing is that the facilitators need to be trained before they take up teaching medical ethics and professionalism.<sup>9,27</sup>

WHO suggested to teach some core and special topics in medical ethics curriculum for undergraduate medical education.<sup>1,9</sup> The core topics include:

- a) Introduction to principles and history of medical ethics;
- b) Professionalism and Codes of conduct and etiquette;
- c) Medical negligence, infamous conduct and misconduct;
- d) Doctor-patient relationship that include general principles like autonomy, beneficence, maleficence, justice with a special focus to informed consent, confidentiality, truth telling, disclosure, patients' rights, end-of-life decisions;
- e) Ethical dilemmas in dealing with pharmaceutical industry and other providers of health care, ethical issues in health care provision by the private sector, ethical challenges facing medical students; and

- f) Ethical dilemmas in reproductive health and treating patients with HIV/AIDS.

The special topics are discipline specific and may need interdisciplinary team or integrated teaching approach. Those are:

- a) Ethical issues in genetic services;
- b) Ethical issues in organ donation and transplantation;
- c) Ethical issues in treating patients with mental illness;
- d) Ethical issues in child healthcare;
- e) Public health ethics, equity and social justice, ethical issues in resource allocation, dealing with alternative systems of medicine; and
- f) Research ethics

Assessment procedure may remain the same as practiced now in different disciplines, i.e., after the formative assessment the students are expected to develop the skill in ethical knowledge and practice throughout in the medical studentship. There will be summative evaluations in the final examination, which is discipline specific.<sup>1,9</sup> For example: Topics like Hippocratic oath, WMA Declaration of Geneva, medicolegal procedure, medical negligence, malpractice, vicarious liability could be applicable in MCQ, SAQ or in viva-voce examination in forensic medicine examination;<sup>28</sup> informed consent, privacy, doctor-patient communication, patient safety can be examined through OSPE and OSCE in clinical subjects.<sup>29,30</sup> One important thing is to include student perspectives when planning and evaluating medical ethics education.<sup>31,32</sup>

## **2. In method of instruction:**

Different institutions adopt different teaching methods, and we believe that there is no single, best pedagogical approach for teaching medical ethics. Learning styles and institutional resources must vary, as we all work in low-resource settings. Moreover, we feel that teaching methods need to be flexible and inclusive respecting cultural practice and religious belief of the people across the country.<sup>33</sup>

To mitigate the above-mentioned issues, medical educators need to consider approaches to teaching ethics and professionalism in medicine that transcend our traditional, basic instruction, i.e., didactic lectures. We have proposed some of the effective methods that have become more common in medical schools/colleges across the globe.<sup>34-38</sup> However, individual teacher and departments are free to make their own adjustments.

### **A) Traditional lecture and seminar:**

This approach is still helpful, especially when discussing wider issues that lend themselves to various perspectives.<sup>38</sup> For example, department of forensic medicine can arrange lecture on topics like professional misconduct and medical negligence,<sup>39</sup> while department of surgery may take the opportunity to discuss ethical case studies related to organ donation and transplantation.<sup>40</sup> Likewise, department of anatomy can arrange a lecture with first year students in the cadaver dissection room on do's and don'ts of cadaver dissection, respectful attitude towards cadaver and professionalism, where they have impressions on how to cope with death and dying in their later professional life as a doctor.<sup>41,42</sup> On the other side, department of community medicine may come up with ethical

issues in public health practice,<sup>43</sup> e.g., ethical issues of mass vaccination while lecturing on EPI in Bangladesh.

### **B) Flipped classroom approach:**

Medical educators may flip the traditional classroom lecture by offering the content in advance through an online platform using reading texts, recorded lectures, tutorial videos, animations, and podcasts in advance.<sup>44</sup> This allows students to watch those contents on their own and saves time for student engagement through active learning activities, problem solving through discussion and collaborative work, and feedback in class.<sup>44</sup> Medical students may watch movies with ethical dilemma, e.g., “The Doctor”, “Wit”, etc., and later engage themselves in discussion, finding ethical dilemmas and come up with a solution and give feedback on their learning.<sup>39,45</sup>

### **C) Teaching the patient perspective:**

Presenting patient perspectives can help medical students think and reflect on diversified presentation of diseases, patients’ experience and ethnic and cultural difference and related ethical issues.<sup>33,34,37</sup> This can be done in bed-side teaching in the wards as well as in ambulatory clinical practices, e.g. while students are placed in a surgical or paediatric ward, or OPD, genetic disease and genetic testing can be taught in small-group sessions and at the same time they can be taught how to discuss genetic testing with patients, highlighting how a woman with a family history of breast cancer decide whether she or her unborn child may or may not to go for genetic screening.<sup>37</sup> Besides, to give students experience in culturally sensitive health care delivery, community medicine field trips can be arranged in areas of ethnic minorities, e.g. health seeking behaviour of the people living in remote rural areas or indigenous lands, where access to

modern medicine is less rather more dependent on traditional or alternative medicine.<sup>9,46</sup> Where this process is difficult, or the setting is hard-to-reach, computer-based patient simulation could be an alternative that incorporates the ethics of healthcare delivery and managed care.<sup>38,47</sup>

### **D) Exploring non-medical disciplines:**

Medical ethics and professionalism instruction should involve collaboration and multimedia. This reinforces a team approach in clinical education. In recent years, many of the medical schools/colleges have incorporated performing art and media, such as improvisational theater exercises/role play, comic drawings, wallpaper, animation and short film/video, etc., by engaging medical students.<sup>34,38,48</sup>

### **E) Writing article or reflection based on ethical issues:**

Faculties should write more and more articles on ethical encounters in clinical practice in professional journals, newspapers, and bulletins. Similarly, medical students should also be invited to write reflective narratives, viewpoints or case reports in journals, annual magazines or bulletins, even in wikis, blogs and newspapers.<sup>49,50</sup> Using such learner-driven approach can help medical teachers move learners from knowledge acquisition and skills development to change in behaviour that may lead to an empathetic, patient-centred care in near future.<sup>50</sup>

### **F) Role Modelling:**

Role modelling of ethical behaviour is an important component of medical ethics education.<sup>5</sup> Faculty must know how powerful modeling can be as a learning tool. We admit that teachers’ voice, language, attitude, responses to students, colleagues, patients, and staff, use of humour have huge impact on students, as we experienced when we were medical students. This is one of the ‘hidden curricula’.<sup>51</sup>

Students, however, largely did not see faculty as positive ethical role models now-a-days, with a few exceptions.<sup>52</sup> For example, students often observe unethical behaviour by faculty and hearing faculty endorse or encourage unethical behaviour in students as well in different medical colleges.

### 3. In faculty development:

To develop students' knowledge and competency in medical ethics and professionalism, the first and foremost necessity is faculty development,<sup>5,9</sup> as one of the main challenges has been uncertainty of whether or not the faculty really know the content, methods to teach and assess the competencies in medical ethics.<sup>53</sup> As the country lack competent medical teachers in teaching medical ethics, authorities like DGHS, DGME, CME, BMRC, BMA, BCPS should arrange more formal and informal training on medical ethics and professionalism for medical teachers as well as specialist and primary care physicians. Besides, postgraduate education on medical ethics/bioethics can be implemented through Bangabandhu Sheikh Mujib Medical University (BSMMU), the only academic medical university of the country. BM&DC should come forward to recognize the specialists in the field, who have already received formal education from abroad. Last but not the least, medical ethics must not be "a 'laissez-faire' process of osmosis from teachers to students".<sup>54</sup>

### 4. In institutional culture:

How do we feel when we consider ethics education as taking place throughout the institutional culture, not just in the classroom? Students could be exposed to messages about ethics and professionalism throughout their MBBS programme, in the formal curriculum, even outside the classroom as well. These messages

can both affect students' ethical development and potentially work side by side with teaching in the classroom. These messages represent new opportunities in teaching medical ethics. For example, our institutional environment, our classrooms, our motto, mission, relevant quotations, bulletin boards, attitude of faculty members and their teaching as well as patient management, client service, visiting hours, patient safety in the hospital section – all become the foundation of what students experience as they enter the institution. When they leave, those create significant mark on their own ethics and professional behaviour.<sup>55</sup> That is another part of the "hidden curricula". It is critical to promote ethical conduct throughout the medical life of a medical student. However, we should not give up; we must follow and also teach the ethical behaviour that has been practiced for decades as well as too long been neglected in our larger medical society.

### Conclusion

Teaching medical ethics and professionalism is crucial in medical education. Medical ethics education is an attempt to foster moral and social values and interpersonal skills to help practice medicine. It teaches us about the roles, principles and values in our relationship with the patients, senior and junior fellow doctors, medical students and others in the society which has a long-lasting impact. Moreover, it helps practice according to statutory requirements and codes of conduct, inform professional obligations, demonstrate sensitivity to ethical issues and ethical behaviour within and outside medical practice. Hence, all stakeholders should think about it and take necessary actions to improvise the medical ethics curriculum, teaching methods, and competences of the medical teachers who will teach, as well as

the institutional environment. That will ultimately lead to building a more professional, more ethical, more patient-centred medical community in the country. We are hopeful about such revolutionary change in near future.

### Abbreviations

BCPS: Bangladesh College of Physicians and Surgeons

BMA: Bangladesh Medical Association

BM&DC: Bangladesh Medical & Dental Council

BMRC: Bangladesh Medical Research Council

CME: Centre for Medical Education

DGHS: Directorate General of Health Services

DGME: Directorate General of Medical Education

EPI: Expanded Programme on Immunization

MBBS: Bachelor of Medicine and Bachelor of Surgery

MCQ: Multiple Choice Question

OPD: Out-patient Department

OSCE: Objective Structured Clinical Examination

OSPE: Objective Structured Practical Examination

SAQ: Short Answer Question

WHO: World Health Organization

### References

1. World Health Organization (WHO). *Module for teaching medical ethics to undergraduates*. New Delhi, India: WHO; 2009.
2. Roberts LW, Warner TD, Hammond KA, Geppert CM, Heinrich T. *Becoming a good doctor: Perceived need for ethics training focused on practical and professional development topics*. *Acad Psychiatry*. 2005;29(3):301-9.
3. Siegler M. *Training doctors for professionalism: Some lessons from teaching clinical medical ethics*. *Mt Sinai J Med*. 2002;69(6):404-9.
4. Rameshkumar K. *Ethics in medical curriculum; Ethics by the teachers for students and society*. *Indian J Urol*. 2009;25(3):337-9.
5. Singer PA. *Recent advances: Medical ethics*. *BMJ*. 2000;321(7256):282-5.
6. Roff S, Preece P. *Helping medical students to find their moral compasses: Ethics teaching for second and third year undergraduates*. *J Med Ethics*. 2004;30(5):487-9.
7. de la Garza S, Phuoc V, Throneberry S, Blumenthal-Barby J, McCullough L, Coverdale J. *Teaching medical ethics in graduate and undergraduate medical education: A systematic review of effectiveness*. *Acad Psychiatry*. 2017;41(4):520-5.
8. Kirk LM. *Professionalism in medicine: Definitions and considerations for teaching*. *Bayl Univ Med Cent Proc*. 2007;20(1):13-6.
9. World Health Organization (WHO). *Facilitators' Guide for teaching medical ethics to undergraduate students in medical colleges in the South-East Asia Region*. New Delhi, India: WHO; 2010.
10. Stirrat GM. *Reflections on learning and teaching medical ethics in UK medical schools*. *J Med Ethics*. 2015;41(1):8-11.
11. Robins LS, Braddock CH 3rd, Fryer-Edwards KA. *Using the American Board of Internal Medicine's "Elements of Professionalism" for undergraduate ethics education*. *Acad Med*. 2002;77(6):523-31.
12. Braunack-Mayer AJ, Gillam LH, Vance EF, Gillett GR, Kerridge IH, McPhee J, et al. *An ethics core curriculum for Australasian medical Schools*. *Med J Aust*. 2001;175(4):205-10.
13. National Institutes of Health (NIH). *National Library of Medicine. Greek Medicine – The Hippocratic Oath*. Available at: [https://www.nlm.nih.gov/hmd/greek/greek\\_oath.html](https://www.nlm.nih.gov/hmd/greek/greek_oath.html) (Accessed November 11, 2021).
14. World Medical Association (WMA). *WMA Declaration of Geneva*. Available at: <https://www.wma.net/policies-post/wma-declaration-of-geneva/> (Accessed November 11, 2021).
15. Bangladesh Medical and Dental Council (BM&DC). *Bangladesh Medical and Dental Council: Code of Professional Conduct, Etiquette and Ethics*. Available at: <https://www.bmdc.org.bd/docs/EthicsBookMakeupfinal.pdf> (Accessed November 19, 2021).
16. Beauchamp TL, Childress JF. *Principles of biomedical ethics*. 8th ed. New York: Oxford University Press; 2019.

17. World Medical Association. World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*. 2013;310(20):2191-4.
18. Bangladesh Medical and Dental Council (BM&DC). Curriculum for Undergraduate Medical Education in Bangladesh – updated 2012. Available at: <http://bmdc.org.bd/mbbs-curriculum-update-2012/> (Accessed November 19, 2021).
19. Mahbub RE. Medical ethics in Bangladesh. *Bangladesh Med J*. 2012;41(1):7.
20. Jahan MU, Rahman SMM. Understanding of professional ethics among a sample of medical practitioners in Bangladesh. *Bangladesh Med Res Counc Bull*. 2020;46(3):168-75.
21. Swazo NK, Talukder MMH, Ahsan MK. A Duty to treat? A Right to refrain? Bangladeshi physicians in moral dilemma during COVID-19. *Philos Ethics Humanit Med*. 2020;15:7.
22. Opinion. Physicians continue to compromise medical ethics. *The New Age*. June 20, 2017. Dhaka, Bangladesh. Available at: <https://www.newagebd.net/article/18143/articlelist/323> (Accessed November 11, 2021).
23. Ahmad F. Medical negligence and duty of care. *The Daily Star*. July 24, 2018. Dhaka, Bangladesh. Available at: <https://www.thedailystar.net/law-our-rights/medical-negligence-and-duty-care-1609813> (Accessed November 11, 2021).
24. Zahan N. OP-ED: Time to take medical negligence seriously. *The Dhaka Tribune*. August 24, 2020. Dhaka, Bangladesh. Available at: <https://archive.dhakatribune.com/opinion/op-ed/2020/08/24/op-ed-time-to-take-medical-negligence-seriously> (Accessed November 11, 2021).
25. Altirkawi K. Teaching professionalism in medicine: what, why and how? *Sudan J Paediatr*. 2014;14(1):31-8.
26. Carrese JA, Malek J, Watson K, Lehmann LS, Green MJ, McCullough LB, et al. The essential role of medical ethics education in achieving professionalism: the Romanell Report. *Acad Med*. 2015;90(6):744-52.
27. Talukder MHK, Chowdhury FP, Shuvra MMR. Teachers' views of WHO teaching guidelines on health ethics for undergraduate medical education in Bangladesh. *Indian J Med Ethics*. 2005;2(2):54.
28. Mahajan R, Aruldas BW, Sharma M, Badyal DK, Singh T. Professionalism and ethics: A proposed curriculum for undergraduates. *Int J Appl Basic Med Res*. 2016;6(3):157-63.
29. Howe KR, Jones MS. Techniques for evaluating student performance in a preclinical medical ethics course. *J Med Educ*. 1984;59(4):350-2.
30. Singer PA, Cohen R, Robb A, Rothman A. The ethics objective structured clinical examination. *J Gen Intern Med*. 1993;8(1):23-8.
31. Bilgin AC, Timbil S, Guvercin CH, Ozan S, Semin S. Preclinical students' views on medical ethics education: A focus group study in Turkey. *Acta Bioeth*. 2018;24(1):105-15.
32. Liu Y, Erath A, Salwi S, Sherry A, Mitchell MB. Alignment of ethics curricula in medical education: A student perspective. *Teach Learn Med*. 2020;32(3):345-351.
33. Kallivayalil RA, Chadda RK. Culture, ethics and medicine in South Asia. *Int J Person Cent Med*. 2011;1(1):56-61.
34. Singer PA. Strengthening the role of ethics in medical education. *CMAJ*. 2003;168(7):854-5.
35. Souza AD, Vaswani V. Diversity in approach to teaching and assessing ethics education for medical undergraduates: A scoping review. *Ann Med Surg (Lond)*. 2020;56:178-85.
36. Lovett LM, Seedhouse D. An innovation in teaching ethics to medical students. *Med Educ*. 1990;24(1):37-41.
37. Johnston C. Teaching ethics in the operating theatre by small group teaching. *Clin Teach*. 2010;7(4):240-3.
38. Lewin LO, Olson CA, Goodman KW, Kokotailo PK. UME-21 and teaching ethics: A step in the right direction. *Fam Med*. 2004;36 Suppl:S36-42.
39. Neoral L. Forensic medicine, its tasks and duties in medical malpractice and medico-legal litigation. *Med Law*. 1998;17(2):283-6.
40. Schicktanz S, Wiesemann C, Wöhlke S, eds. *Teaching ethics in organ transplantation and tissue donation: cases and movies*. Göttingen, Germany: UNESCO; 2010.
41. Nurunnabi ASM, Ara S, Khalil M, Khalil M. Ethics in dissection of cadaver in teaching and learning of anatomy. *Bangladesh J Bioethics*. 2011;2(3):10-15.
42. Shiozawa T, Griewatz J, Hirt B, Zipfel S, Lammerding-Koeppel M, Herrmann-Werner A. Development of a seminar on medical professionalism accompanying the dissection course. *Ann Anat*. 2016;208:208-11.

43. Dawson A, Vaccination ethics. In: Dawson A. *Public health ethics – Key concepts and issues in policy and practice*. New York: Cambridge University Press; 2011.
44. Daud N, Yunus NI, Juhari SN, Mat Hassan N, Pauzi MF. Teaching medical ethics during Covid-19 pandemic: an experience using flipped classroom and game-based learning running head: online flipped classroom and kahoot. *Asian J Med Biomed*. 2021; 5(2):6-15.
45. Self DJ, Baldwin DC Jr, Olivarez M. Teaching medical ethics to first-year students by using film discussion to develop their moral reasoning. *Acad Med*. 1993;68(5):383-5.
46. Ewen S, Mazel O, Knoche D. Exposing the hidden curriculum influencing medical education on the health of Indigenous people in Australia and New Zealand: The role of the critical reflection tool. *Acad Med*. 2012;87(2):200-5.
47. Bishop CE, Maradiaga G, Freeman KR, Peters TR, Jackson JM. Simulation: An innovative approach to engaging preclinical medical students with bioethics. *Med Sci Educ*. 2021;31(2):325-9.
48. Rattani A, Kaakour AH. Screenplays and screenwriting as an innovative teaching tool in medical ethics education. *J Med Humanit*. 2021;42(4):679-87.
49. Daryazadeh S. Application of narrative in medical ethics. *J Med Ethics Hist Med*. 2019;12:13.
50. Boulos MN, Maramba I, Wheeler S. Wikis, blogs and podcasts: A new generation of web-based tools for virtual collaborative clinical practice and education. *BMC Med Educ*. 2006;6:41.
51. Lehmann LS, Sulmasy LS, Desai S; ACP Ethics, Professionalism and Human Rights Committee. Hidden curricula, ethics, and professionalism: optimizing clinical learning environments in becoming and being a physician: A position paper of the American College of Physicians. *Ann Intern Med*. 2018;168(7):506-8.
52. Jayasuriya-Illesinghe V, Nazeer I, Athauda L, Perera J. Role Models and teachers: Medical students perception of teaching-learning methods in clinical settings, a qualitative study from Sri Lanka. *BMC Med Educ*. 2016;16:52.
53. Lu WH, Mylona E, Lane S, Wertheim WA, Baldelli P, Williams PC. Faculty development on professionalism and medical ethics: the design, development and implementation of Objective Structured Teaching Exercises (OSTEs). *Med Teach*. 2014;36(10):876-82.
54. Ravindran GD, Kalam T, Lewin S, Pais P. Teaching medical ethics in a medical college in India. *Natl Med J India*. 1997;10(6):288-9.
55. Hafferty FW, O' Donnell JW. *The hidden curriculum in health professional education*. Hanover, New Hampshire: Dartmouth College Press; 2014.