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LETTER to EDITOR

How can we teach and assess professional ethics to undergraduate medical students?

Dear editor,

Professional ethics is a system of moral principles that apply values and judgments to the practice of medicine. These moral principles regulate the acts and practices of doctors in their everyday practice of medicine, for instance, in providing treatment to the patients, dealing with colleagues, teaching medical students and carrying out medical research. These moral principles are derived from a diverse array of social, cultural, legal and religious values (1, 2). The core principles of the ethics related to patients' care include the patient's autonomy, beneficence, non-maleficence, justice, patient's dignity, truthfulness, and honesty. These core ethics are deeply embedded in all important medical ethic codes, including the Hippocratic Oath and the Helsinki's declaration (3, 4). Professional ethics is imperative to be taught to the medical students. As they progress through their education and then in their professional career, they inevitably encounter situations that entail a variety of ethical issues, conflicts or dilemmas. They need to be taught ethics, in order to render them competent in this vital domain of their profession. This will enable them to identify and address ethical issues amicably. This need is all the greater owing to the every-day advances in medical technologies and ever-changing cultural and societal norms. Professional ethics should be taught to students for the following reasons:

- To create awareness among them (at the very outset of their formative years), about the ethical and human right issues that will be encountered in their day to day clinical practice.
- To inculcate in them the desired professional values, virtues and behaviors, appropriate to the context of the

medical field as well as the Muslim society.

c) To prepare them for ethical decision making in a variety of clinical situations. For instance, how to address a situation entailing breaking bad news or taking consent for surgery from a minor or a cognitively incompetent person.

d) To develop their professional identity as a good doctor. An ethically trained doctor goes through the processes of attainment and attrition, rendering him a balanced and ethically competent professional (5,6).

Core topics of ethics should be taught to the undergraduates. Medical students need ethically conducive learning environment as well as formal curriculum about the core topics and threshold concepts of ethics and professionalism. This will prepare them for ethical decision making in real life situations. Following are the core topics that should be taught to them (7,8):

1. Primacy of patient welfare:

e.g., Altruism versus fiduciary; Patients' rights; Patient safety; Respect for the human body.

2. Decent Doctor-patient relationships:

Respect for patient's autonomy; Beneficence; Non-maleficence; Empathy; Informed consent. Decision making in patients lacking capacity to consent; Patient's dignity, confidentiality and privacy; Trust, Truthfulness and honesty; Ethical communication during information taking and information giving; Ethics and consent in medical research; Ethical issues regarding bereavement, dying and end of life decisions; Social justice and healthcare resource allocation; Local laws and regulations regarding contentious issues such as abortion; New technologies and ethical challenges in medicine.

Table 1. The assessment tools for assessing professional ethics (7, 13,14)

Miller's assessment level	Assessment tools
1-Knows: i.e., knowledge of the core principles of professional ethics, local laws and regulations regarding ethical issues, conflicts and dilemmas.	<ul style="list-style-type: none"> Context-rich Multiple Choice Questions (MCQs) Short Essay Questions (SEQs) Short Answer Questions (SAQs)
2-Knows how: i.e., Application of the knowledge of professional ethics in increasingly complex situations.	<ul style="list-style-type: none"> Case-cluster-MCQs. Extended matching questions (EMQs). Situational judgment tests (SJT). Reflective activities, e.g. critical incident.
Shows how (i.e. Habituation): Demonstrates skills and behaviors with relevant knowledge of professional ethics and critical thinking, ethical awareness and empathy.	<ul style="list-style-type: none"> Objective structured clinical examination (OSCE). Clinical simulations. Standardized professional encounters. Case studies (Vignettes). Case based Discussion (CbD). Mini clinical evaluation exercise (Mini-CEX). Videotaping of performance with follow up review.
Does: (Observation in Practice). i.e. Critical ethical competency in practice.	<ul style="list-style-type: none"> Multi-source feedback (MSF) or 360° evaluation. Portfolio assessment.

3. Professional attributes of a good doctor:

Professional competence; Avoidance of professional negligence; Conflict of interests.; Medical errors and physician's responsibility; Good collaboration with other professionals; Respect for colleagues, professional brethren and institutional norms; Respect for juniors and seniors; Teaching the juniors and paramedics; Contribution to research and body of knowledge.

4. Added responsibilities as a Muslim doctor as ordained by the Quran and Sunnah.

The aforementioned is a comprehensive list of the core topics or threshold ethical concepts which are appropriate to be taught at the undergraduate level. These topics should be part of the integrated curriculum, taught in a spiral fashion throughout the five years MBBS program.

What strategies should be employed to teach ethics? There is growing awareness about the importance of teaching professional ethics to students; however there exist no universally accepted guidelines on how to teach them. Most authorities advocate teaching ethics both formally as well as informally. The cognitive base should be taught formally whereas the same should be reinforced and internalized through the informal curriculum, especially role modelling. The informal teaching of professional ethics entails role modelling, mentoring and experiential learning throughout the student's life. Medical students should be provided with learning milieu wherein ethical policies and practices are in practice as a norm. The teachers themselves must be good role models of ethical practices and professionalism.

Considering the formal teaching, professional ethics is best taught through student-centered approaches. This ensures

their active involvement and hence deep learning. The formal curriculum on ethics can be delivered in a spiral fashion through an integrated curriculum. Problem-based learning (PBL), small group discussion (SGD), Entrustable professional activities (EPAs), and case-based learning (CBL) are some of the student-centered approaches to teaching professional ethics (7,9,10).

PBL has been one the most advocated instructional strategy for teaching professional ethics. It is an active learning strategy which ensures participation of the students in the learning activity. The PBL efficiently integrates objectives that cross various disciplines and domains such as ethics and humanism. It allows for integration of basic and clinical knowledge. It also facilitates achievement of higher cognitive objectives (7-11).

SGD in combination with structured lecture has also been found useful in teaching ethics. A combined lecture and SGD helps to systematically cover the desired breadth of theory and the selected range of common moral problems. The SGD is an active learning strategy which particularly addresses microconceptions. It helps with achievement of higher cognitive objectives. The SGD will also reinforce the knowledge obtained in the lecture (11,12).

Ethical considerations

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have been completely observed by the authors.

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