Curriculum Goals and Learning Outcomes of Medical Ethics and Professionalism Courses in Undergraduate Medical Curriculum of Pakistan

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Abstract

The objective of this paper is to develop curriculum goals and learning outcomes of medical ethics and professionalism courses in undergraduate medical curriculum of Pakistan which is the next step after general needs assessment and targeted needs assessment. The Medical Ethics and Professionalism curriculum has been designed to be implemented at undergraduate level of medical education. The logic model presented in the paper may act as a blueprint for educators developing a Medical Ethics and Professionalism course for teaching guiding principles of practice of medicine to prospective doctors. The logic model highlights the elements e.g. human, financial resources and PMDC's support, impact of short terms and long-term outcomes for learners, educators and patients that should be taken into account at every step of implementation.

Keywords: Curriculum planning; medical ethics; professionalism; goals; learning outcomes

Introduction

In Pakistan, once medical students complete their MBBS they start a one-year clinical internship also known as a house-job, which is required to get a license to practice. The duration of MBBS is five years while house-job is for one year. During the first two years of medical school, they are taught Anatomy, Physiology, and Biochemistry. In the third year, they study Pharmacology, Forensic medicine, and General Pathology and Microbiology. Special Pathology (Organ System Pathology), Community Medicine, Otolaryngology, and Ophthalmology are taught in 4th year whereas in the final year of medical school they learn about Medicine, Surgery, Obstetrics/Gynecology, and Pediatrics. The medical students in Pakistan start their clinical rotations from 3rd year. They are posted to different clinical disciplines (e.g. Gynecology, Surgery, Medicine, Ophthalmology, etc.). After graduation, they start their house-job in which they have consecutive on-call duties and maximum interactions with the patients and their
families. It is in 3rd year where interaction with the patients and their families start and I would say it is that time from where they might show unethical and unprofessional behavior owing to no concept of medical ethics and professionalism. Medical ethics and professionalism are left onto the personal opinions and views of the faculty of that department, as there is no concept of learning medical ethics and professionalism. The MBBS Curriculum developed jointly by Pakistan Medical and Dental Council (PMDC) and Higher Education Commission (HEC) of Pakistan (PMDC, 2018) does not address the needs of medical ethics and professionalism unlike other developed countries such as Canada, USA, and UK where this course is an integral part of the undergraduate curriculum (Johnston and Mok, 2015a). Therefore, throughout the journey of becoming a practicing physician or even a consultant, this critical aspect remains deficient, which becomes the root cause of many avoidable ethical issues.

During the last decade, social media has taken our world by storm and medical students and physicians face ethical challenges concerning professionalism and doctor-patient relationship more than ever (Asghari, Samadi and Rashidian, 2013). The aim of incorporating medical ethics and professionalism course in MBBS curriculum is to fill this gap by increasing the ability of prospective doctors to recognize, analyze, and respond to issues in medical ethics and professionalism. This course will enable future doctors to behave according to the ethical principles by providing an overview of the major ethical issues that arise in the practice of medicine, medical education, and research. Moreover, research shows that medical students found the learning experience of medical ethics very useful and positive (Johnston and Mok, 2015b). This paper proposes curriculum goals and learning outcomes of medical ethics and professionalism courses in the Undergraduate Medical Curriculum of Pakistan. Ethical approval was not required for this research.

Assumptions

1. The general needs assessment has been conducted, which emphasized the significance of incorporating medical ethics and professionalism in the undergraduate curriculum.

2. Following the six-step approach of the curriculum (Thomas et al., 2015), the next step after a general needs assessment was the targeted needs assessment. The targeted needs assessment was performed by obtaining systematic data collection through focus groups, interviews, and surveys of all the stakeholders.

3. PMDC and HEC have agreed to incorporate this course in the undergraduate medical curriculum.

Curriculum Goals

The third step in curriculum development is describing goals or objectives which is defined as an end towards which an effort is directed (Thomas et al., 2015). The intention of the “Medical Ethics & Professionalism” course is to educate prospective doctors to choose the right course of action among available choices by recognizing ethical issues that may arise during patient care delivery (e.g. decision making, clinical judgement, patient's privacy, confidentiality, breaking bad news, informed consent, use of social media, religion, culture, spirituality, gift acceptance, management of challenging patients and their family members, resources allocation, research with human subjects and conflict of interest) (Carrese et al., 2015). The specific goals of this curriculum are listed in Table 1.
Table 1: Medical Ethics & Professionalism Curriculum Goals

| This curriculum aims…          |
|--------------------------------|
| 1 To recognize common ethical issues likely to arise in medicine |
| 2 To know ethical norms in medicine                                 |
| 3 To apply their knowledge and skills to anticipate ethical problems |
| 4 To handle ethical problems effectively                             |
| 5 To understand and articulate the complexity of end-of-life issues |
| 6 To understand the scope of medical students and physicians’ professional responsibilities |
| 7 To adhere to professional ethics with consequential improvements in a doctor-patient relationship which can improve clinical outcomes |

Learning Outcomes

The main goal of medical education is to train physicians who are capable of delivering quality health care leading to improved patient outcomes (Moreau and Eady, 2015). The significance of exploring subject matter to be learned in terms of intended learning outcomes is established. Learning outcomes can be defined as broad statements of what is achieved and assessed at the end of the course of study (Harden, 2002). The learning outcomes of the Medical Ethics and Professionalism curriculum are presented in Table 2.

Table 2: Medical Ethics & Professionalism Curriculum Learning Outcomes

| By the end of this course, students will be able to                           |
|---------------------------------------------------------------------------|
| 1 Comprehend the basis of responsibilities especially relevant ethical principles that will enable you to make the right decisions. |
| 2 Recognize the skills needed to act professionally after making the right choices. |
| 3 Applying the knowledge and skills appropriately in a given situation.    |

Educational Strategies

After defining the curriculum goals and determining the learning outcomes of Medical Ethics and Professionalism curriculum, the 4th step of curriculum development i.e. Educational Strategies will be discussed which ensures the achievements of curricular objectives. The specific material to be included in the curriculum called as content and the way by which that material is presented or delivered is known as a method, are components of educational strategies. Educational strategies are the heart of the curriculum and they provide the means by which curriculum objectives are achieved (Thomas et al., 2015).

To deliver this content, various educational strategies will be employed such as a combination of lectures, readings, small group discussions, large group discussions, submission of papers, problem-based learning, presentations, and audio-visual reviews aligned with the goals of the curriculum. This course will be delivered over five years. In the first two years of medical school, lectures will be delivered by the subject specialist and most general topics in Medical Ethics and Professionalism such as principles of ethics, informed consent, confidentiality, and research ethics will be presented in lectures. Students will be required to read selected readings from the selected journals and participate in discussions through Problem-based learning. In 3rd and 4th years, facilitation of openness, role-models, and reflective writing strategies will be used to equip the students with knowledge and skills required to anticipate an ethical dilemma, analyze, and present a solution to the problematic situation involving ethics or professionalism. In the fifth year, ethical questions raised by the cases will be addressed using demonstration by the experts and role-play strategy for instance a student (acting as a physician) will demonstrate the skills of breaking the bad news to the fellow student (acting as the patient or the family of the patient) in the presence of a facilitator or a subject specialist.
and the performance will be recorded with the audio-visual equipment. The facilitator will then provide feedback to the student. Research papers and elective opportunities will be optional and available to those students who aspire to excel further in this field. The educational strategies aligned with the goals and learning outcomes are listed in Table 3.

Table 3: Medical Ethics & Professionalism Curriculum Content

| Books                                                                 |
|-----------------------------------------------------------------------|
| 1. Ethics and Professionalism: A Guide for the Physician Assistant 1st Edition by Barry Cassidy Ph.D. PA-C (Author), J. Dennis Blessing Ph.D. PA-C (Author) |
| 2. Case Files Medical Ethics and Professionalism by Eugene C. Toy (Author), Susan P. Raine (Author), Thomas I. Cochrane (Author) |
| 3. Professionalism and Ethics in Medicine A Study Guide for Physicians and Physicians-in-Training |

| Journals                                                                 |
|-------------------------------------------------------------------------|
| 1. Canadian Journal of Bioethics                                         |
| 2. American Journal of Bioethics                                         |
| 3. Journal of Medical Ethics                                             |
| 4. Journal of Clinical Research & Bioethics                              |

| Websites                                                                 |
|--------------------------------------------------------------------------|
| 1. Society, the individual, and Medicine, [https://www.med.uottawa.ca/sim/Data/Serv_Ethics_e.htm](https://www.med.uottawa.ca/sim/Data/Serv_Ethics_e.htm) |
| 2. University of Toronto Joint Centre for Bioethics (JCB), [http://jcb.utoronto.ca](http://jcb.utoronto.ca) |
| 3. Bioethics.net, Where the World Finds Bioethics, [http://www.bioethics.net](http://www.bioethics.net) |
| 4. National Institute of Health, Department of Bioethics, [https://www.bioethics.nih.gov/home/index.shtml](https://www.bioethics.nih.gov/home/index.shtml) |

Assessment Strategies

Standards for Educational and Psychological Testing defines assessment as any systematic method of securing information from tests and other sources, used to draw inferences about characteristics of people, objects, or program (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 2014). Miller's pyramid is considered as a useful model of knowledge regarding health professions education assessments. There are four levels of Miller's pyramid i.e. Knows (Knowledge), Knows How (Competence), Shows How (Performance), and Does (Action). The first two levels are concerned with knowledge and it will be tested through multiple choice questions, short answer questions, modified essay questions, script concordance test, matching items, and true & false items. For third and fourth level performance, assessment methods such as Objective Structured Practical Examination (OSPE), direct observation and video reviews will be used (Downing and Yudkowsky, 2009). The assessment strategies appropriate for the learning experiences are listed in Table 4.

Table 4: Medical Ethics & Professionalism Learning Outcomes, Educational Strategies & Assessment Strategies
Upon completion of this curriculum, medical students will be able to:

| Learning Outcome | Cognitive | Affective | Psychomotor |
|------------------|-----------|-----------|-------------|
| **Comprehend the basis of responsibilities especially, relevant ethical principles e.g., autonomy, nonmaleficence, beneficence, justice, etc., that will enable them to make the right choices.** |

**Assessment Strategies**

| Multiple Choice Questions | Short Answer Questions | Modified Essay Questions | Script Concordance Test | Matching Items | True & False |
|---------------------------|------------------------|--------------------------|-------------------------|----------------|-------------|
| X                         | X                      | X                        | X                       | X              | X           |

**Educational Strategies**

| Readings | Lectures | Discussions | Problem-based learning | Online learning resources |
|----------|----------|-------------|------------------------|--------------------------|
| X        | X        | X           | X                      | X                        |

- **Applying the knowledge and skills appropriately in a given situation.**
- **Recognize the skills needed to act ethically after taking the right decisions.**
- **Recognize the skills needed to act ethically after taking the right decisions.**

| Objective Structured Patient Exam | Standardized Oral Exam | Video Review | Direct Observation | Objective Structured Clinical Examination | Long Cases | Short Cases | Practical Examination | Objective Structured Test |
|----------------------------------|------------------------|--------------|-------------------|------------------------------------------|------------|-------------|-----------------------|--------------------------|
| X                                | X                      | X            | X                 | X                                        | X          | X           | X                     | X                        |

- **Recognize the skills needed to act ethically after taking the right decisions.**
- **Recognize the skills needed to act ethically after taking the right decisions.**
- **Recognize the skills needed to act ethically after taking the right decisions.**
Programmatic assessment will be applied. There will be nine assessments over the course of five years. One assessment will be conducted at the end of the first year, and two assessments every six months onwards. As all assessment methods have limitations and not a single method can assess a student’s ability, therefore, each assessment moment will be considered as a single data point and at the end of five years, students will be declared pass or fail or awarded distinction based on their performances on all assessments. Feedback will be given at the end of each assessment to facilitate students in improving their knowledge and skills. The distinction, pass and fail criteria are listed in Table 5.

Table 5: Criteria for Distinction, Pass and Fail

| Percentage (%) | Remarks     |
|----------------|-------------|
| 85 or above    | Distinction |
| 50 or above    | Pass        |
| Below 50       | Fail        |

Conclusion

The Medical Ethics and Professionalism curriculum has been designed to be implemented at the undergraduate level of medical education. The logic model presented in Table 6 may act as a blueprint for educators developing a Medical Ethics and Professionalism course for teaching guiding principles of practice of medicine to prospective doctors. The logic model highlights the elements e.g. human, financial resources and PMDC’s support, the impact of short terms and long-term outcomes for learners, educators, and patients that should be taken into account at every step of implementation.

The curriculum focuses to educate prospective doctors to understand why a physician should act in one way rather than another. It involves reasoning behind believing why one course of action is better than another. Physicians are expected to counsel, explain and give reasons for the choices they make as doctors to their patients, patients’ families and to their colleagues. This curriculum empowers physicians to understand and respond to relevant medical issues.
| Inputs          | Activities                                                                 | Outputs                                                                 |
|----------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Educators      | Select lectures from the journals                                           | Improved teaching and research skills                                   |
| Students/Doctors | List of topics                                                            | Improved career satisfaction                                             |
| Students/Doctors | Performance on educational strategies                                    | Successful implementation and establishment of Medical Ethics & Professionalism course in undergraduate medical curricula |
| Students/Doctors | Number and types of assessments                                           | Improved career satisfaction                                             |
| Students/Doctors | Number of research papers                                                  | Successful implementation and establishment of Medical Ethics & Professionalism course in undergraduate medical curricula |
| Students/Doctors | Numbers of hours for educational strategies                               | Improved career satisfaction                                             |
| Students/Doctors | Number of facilitators and educators                                       | Successful implementation and establishment of Medical Ethics & Professionalism course in undergraduate medical curricula |
| Students/Doctors | Performance on assessments                                                | Successful implementation and establishment of Medical Ethics & Professionalism course in undergraduate medical curricula |

**Table 6: Medical Ethics and Professionalism Logic Model**

| Short-Term Outcomes | Long-Term Outcomes |
|---------------------|--------------------|
| Students/Doctors    | Improved job satisfaction |
| Patients            | Improved mindfulness regarding ethical issues |
| Patients            | Burn-out prevention due to ethical stress level related to ethical issues |
| Patients            | Decreased litigation |
| Patients            | Improved patient outcomes |
| Students/Doctors     | Increased job satisfaction |
| Students/Doctors     | Improved professional and ethical behavior |
| Students/Doctors     | Increased understanding of ethical norms in medicine |
| Students/Doctors     | Improved ability to resolve ethical issues or prevent an ethical issue |
| Patients            | Improved ability to make right choices related to specific treatment influenced by the patient-physician interaction |
| Students/Doctors     | Improved understanding of effective pedagogies for the content |
| Patients            | Better understanding of effective pedagogies for the content |
| Students/Doctors     | Successful implementation and establishment of Medical Ethics & Professionalism course in undergraduate medical curricula |
| Patients            | Improved patient outcomes |
| Students/Doctors     | Improved patient safety and confidentiality |
| Students/Doctors     | Improved patient confidentiality |
| Students/Doctors     | Improved patient outcomes |
| Students/Doctors     | Improved patient safety and confidentiality |
| Patients            | Improved patient confidentiality |
| Students/Doctors     | Improved patient outcomes |
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| Patients            | Improved patient confidentiality |
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Take Home Messages

Physicians are expected to counsel, explain and give reasons for the choices they make as doctors to their patients, patients’ families and to their colleagues.

Notes On Contributors

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Appendices

None.

Declarations

The author has declared that there are no conflicts of interest.

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Ethics Statement

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