

REVIEW ARTICLE

AWARENESS OF MEDICAL ETHICS IN UNDERGRADUATE MEDICAL STUDENTS- A LITERATURE REVIEW

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ABSTRACT

Medical ethics is a core issue for all specialties and is encompassed in professionalism. It is a presumption that not dealt appropriately in the undergraduate teaching curriculum. There is a paucity of awareness lectures and seminar workshops in teaching setups for medical ethics for undergraduates in developing countries. The current policy of PMDC does not provide a centralized curriculum for teaching of medical ethics in medical colleges, which results in lack of logical ethical reasoning among students. There is a need to develop a medical ethics curriculum taught by medical ethics department in every medical college in collaboration with the clinicians with real life case scenarios. Students should be evaluated through examinations at the end of every year with fixed hours dedicated to the teaching of the curriculum. Only, through these measures patient satisfaction will improve and medicine can achieve its lost glory and nobility in our part of the world.

Keywords: Department, Medical ethics, Medical college, PMDC, Workshops.

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INTRODUCTION

In versatile field of medicine, there are many instances in which a physician faces confusion or conflict. An organized, reviewed and widely accepted system of principles and values that medical physicians refer to in times of need is called medical ethics¹. These values include autonomy, beneficence, non-maleficence and justice. These values are of core importance to the practice of medicine as they ensure that patient's rights are met, doctors perform their duties to the best of their abilities and involve patient's families in decision making process which ultimately decides the fate of the patient. These values also confirm a healthy doctor-patient relationship within boundaries of morality and respect for each other as good human beings².

As we explore history, we find that medical ethics was not something new to our times. The Hippocratic Oath is the first documented piece of evidence which describes duties of a physician in detail. In Fifth century works of Cassiodorus, followed by Arab physician Ishaq Bin Al-Rohawi

in 6th century widened the dimensions of medical ethics. Due to rapid growth and development of science in twentieth century, medical ethics saw new challenges resulting in formation of the famous Nuremberg Code (1947) and American Medical Association (1947), the Declaration of Geneva (1948), Declaration of Helinski (1964) and development of hemodialysis with laws pertaining to it in 1970.

Six Basic Principles of Medical Ethics

Six basic moral principles of medical Ethics given by James Childress and Tom Beauchamp, in their famous book, Principles of biomedical ethics. These principles are applied after weighing them against each other. It comes from the term "Prima Facie" given by famous British philosopher W D Ross, which means that every principle is a binding one, until it contradicts the other¹. The four principles are:

- **Respect for Autonomy**

Respecting the autonomy means to respect patient's wishes in a way that the patient has the right to get the treatment or even refuse the treatment. It is viewed as the right of self determination of the patient. Autonomy in Western societies is a core belief which demands

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the rule of self and views it as a basic right of the individual in health related issues and decision making. However in our part of the world, including Pakistan it may not be applicable as most of the decisions are made by the elders or Head of the family.

- **Beneficence**

It means that a physician should act always in the best interest of the patient under all circumstances. Welfare of the patient and his health should always be the first priority of a physician.

- **Non-maleficence**

The basic idea of the concept is not to cause any harm to the patient, do more good than harm. The concept of maleficence is very well embodied by a famous phrase, "first do no harm". It is important as certain procedures or drug treatments have fatal effects on patient's health. It is therefore important for a physician to balance the risk-benefit ratio in such cases.

- **Justice**

It concerns with the distribution of scarce health resources and their just allocation. It also means to act fairly in all the matters relating to the patients and their health.

Two other values that apply to the medical ethics discussion are:

- **Dignity**

It means the respect of the patient and treating health workers, including doctors, nurses and staff in all the matters including that of conduct and treatment.

- **Truthfulness and Honesty**

It lays light on the importance of informed consent, honesty and respect between the patient and the doctor.

Hippocratic Oath

Almost all of the medical colleges in the world have some form of medical oath used in their graduation ceremonies. Hippocrates is known as the father of Western Medicine³. The

Oath is one of the most popular Greek manuscripts known till date. It also one of the most widely known medical manuscripts known from pre historic times. It dates back to fourth century BC, almost 2400 years old. The Oath, basically is a pledge made by a physician. In the Western literature it is the oldest manuscript on medical ethics. According to Patton CJ⁴, Hippocratic Oath can be divided into 12 components: covenant with diety, covenant with means, commitment to students, covenant with patients, appropriate means, appropriate ends, limits on ends, accountability, limits on means, justice, chastity, and confidentiality.

Hippocratic Oath recognized medicine as craft that a physician practices over his patients. This led to the famous saying of "First do no Harm"⁵. Although the Oath as simple text has a historic and symbolic value but due to its comprehensive nature it is still practiced today in many countries of the world, including Pakistan as a rite in medical colleges taken by the graduating physicians⁶. Due to advances in science, particularly in the field of medicine, many components of the Oath have been modified in different parts of the world but its fundamental concepts of autonomy and beneficence remain the same even today, as the human nature and its needs didn't change even after thousands of years.

First Medical Ethics Book in Arab Medicine

Great Muslim civilization of 6th century saw many notable physicians and scholars. Ishaq Bin Ali Al-Rohawi, a famous physician of the same century wrote a book on medical ethics named, Adab al-Tabib (Practical Ethics of the Physician)⁷. His book contained the first ever documented description of peer review process in which works of a physician were reviewed by his fellow colleagues and he could face a lawsuit if he didn't treat the patient well⁸. The book contained almost twenty chapters covering different aspects on medical ethics⁹.

Few of the many other contributions made by Muslim physicians include, Avicenna's Canon

of Medicine and Al-Razi's book on medical ethics⁹.

Regulation of Medical Profession and Evolution of Medical Ethics

In 1815, Apothecaries Act was passed by the parliament of United Kingdom which made it essential for the physician to have a license for practice¹⁰. It marked the beginning of regulation of the medical profession in the UK¹¹. The American Medical Association adopted its first ever Code of Ethics in 1847, most of it being based on the work done by Thomas Percival³. In America during 1960s and 1970s, much of the medical ethics code adopted in 1847 went through procedural and liberal shift, transforming itself into bioethics¹². After the World War II, a number of trials were held against Nazi party of Germany to hold them responsible for the war crimes they had done during the war. These trials began on December 9, 1946 in Nuremberg, Germany, and were called the Nuremberg trials. In one of the trials, in which German doctors were accused of conducting several horrendous experiments on human subjects¹³. As a result a committee was constituted which formed certain regulations on human experimentation, thus naming it as the Nuremberg code¹⁴.

The code consisted of 10 points which included principles such as informed consent, beneficence of the individuals and absence of force or threat¹⁵. These principles are thought to be based on values of Hippocratic Oath, which endorse the idea of experimentation in medicine while ensuring the rights of the patient.

Physician's Oath or the Declaration of Geneva was adopted at Geneva in 1948 by the General Assembly, of the World Medical Association. This declaration was further amended in 1968, 1983, 1994. It was editorially revised in 2005 and 2006 and amended in 2017¹⁶.

It followed the Nuremberg Code, as a declaration of physician's commitment to the welfare and beneficence of the patient. The Declaration of Geneva was intended to be a

revision of the Hippocratic Oath in a way that it could be comprehended easily in today's modern world¹⁷.

The Declaration of Helsinki is known as the cornerstone document on human research ethics. It is a set of ethical principles containing guidelines on research and experimentation on human subjects. This was made by World Medical Association¹⁸.

The fundamental principles are the same which include autonomy of the patient, his or her informed consent before participating in a research and during a research¹⁹. The patient's interests must always take precedence over science and medicine while keeping ethics above other laws and regulations²⁰.

Most of the times, decisions in clinical settings are taken by the physicians on basis of the clinical evidence. Ethical issues arise when either, patients or their attendants don't agree on something²¹.

DISCUSSION

After the groundbreaking advancements in the field of medicine in 20th century, such as use of ventilators in keeping comatose patients alive, transplantation of organs, newer reproductive techniques and rise of biotechnology, changed the face of medical practice giving rise to new ethical dilemmas²². Together with this, health care transformed into a health industry from a mere relationship between a doctor and his patient. After many new scandalous cases and declaration of Charter of Human Rights, health care became more patient-centered, involving patients equally in the decision-making process while ensuring their rights.

Some of the issues of modern world are genomic studies on human embryo for early disease detection of certain hereditary diseases, reproductive technologies (in vitro fertilization), use of bio-banks for research purposes, sperm donations, and use of stem cells for uses in research and genomic studies.

The Pakistan Medical and Dental Council (PMDC) gave its first ever Code of Ethics in 2002 which specified that biomedical ethics should be taught in all medical/dental colleges of the country. This Code was updated in 2011 as the Code of Ethics of Practice for Medical and Dental Practitioners, Regulations 2011.

The PMDC Code directs that in addition to the incorporation of its components in undergraduate curriculum, the Code should be incorporated by the College of Physicians and Surgeons of Pakistan as well as by Universities running postgraduate medical courses, and asks for newer strategies for the promotion of medical ethics education.

Medical Ethics Curriculum Currently Practiced in Country

The undergraduate curriculum developed by HEC and PMDC for medical and dental colleges contains the guiding principles, the schemes of studies and details of courses taught. Some overlapping areas such as genetics, infectious diseases, bio statistics, diabetes mellitus and ethics are specified under more than one discipline. But under the heading of guiding principles, ethics has been specified as an additional subject, not compulsory and to be taught by the universities, implementing the curriculum.

According to the official web link of PMDC, the current curriculum is the first step towards developing a more comprehensive and detailed curriculum. The curriculum describes ethics to be taught as an integration of different disciplines, but it does not specify to what extent, therefore leaving the decision on the respective universities.

The PMDC curriculum has given a list of topics to be included in Forensic Medicine under the heading of "Laws relating to medical men". This topic includes development of doctor-patient relationship in the context of high ethical standards, to guard professional secrets and privileged communication, to understand and refrain from any temptations to professional

misconduct, to maintain highest ethical principles in medical examination and when obtaining consent and to define what constitutes medical negligence. In addition, it also teaches, national and provincial laws which apply in different medico legal scenarios²³. It also emphasizes on issues like organ transplantation, insemination and research ethics. But due to absence of an elaborated methodology for accomplishing required competencies and skills in medical ethics a lot of issues are arising in different universities.

Second portion of the medical ethics is included in the subject of Community Medicine. Its core contents are background, definitions, concepts and code of Medical Ethics. The contents of Medical Ethics to be taught in clinical disciplines includes; developing effective communication skills with patient and his family, techniques and practices of breaking the bad news and maintaining confidentiality. It asks for provision of ample opportunities for the students to apply their knowledge of medical ethics in their respective fields.

The PMDC dictates Behavioural Sciences, to be taught in the subject of Psychiatry. The curriculum explains the desired outcome in a fresh medical graduate as to have an understanding of body in disease and health and correlation of psychology with human physiology. Respecting patients, colleagues and other staff while developing a sympathy for the ailing humanity.

In addition to this, medical graduates need a hidden curriculum with the formal curriculum in order to inculcate norms, traditions and customs of the society and their area of practice. This "Hidden Curriculum" is taught by the mentors. A comprehensive ethics curriculum requires the understanding of broader cultural context, in the light of which the curriculum should be developed (Hafferty & Franks, 1994). In Pakistan education is being imparted on Western grounds with all our textbooks in English. Though the subject of medical ethics is universal but its

requirements are different, in different geographical regions of the world owing to the cultural and religious diversity. Therefore, this model of PMDC is inadequate to meet the requirements of medical graduates in the field of medical ethics in our country.

The PMDC curriculum stresses the need for developing desired noble attributes in a doctor, with an idea of good doctor patient relationship, informed consent and productive communication skills. PMDC also directs the universities to test medical students in these skills²⁴. But as this job is given to the respective medical university by the PMDC, most of the universities fail to meet the standards required making students unable to understand core concepts of medical ethics. Therefore, medical ethics should be applied as a unified curriculum with in depth analysis of the subject, in all the colleges and universities at undergraduate and postgraduate level. As some values are common to most of the situations in medicine, these must be taught to all the students, even to those who have missed their formal training (Lakhan, Hamlat, McNamee & Laird, 2009). This common curriculum shall ensure a minimum standard to be met by the graduates and prevent to some extent at least, medical graduates from ethical misconduct. This core curriculum should be based on the local and regional needs of the country, as it does in most of the developed countries of the world²⁵.

Need for Medical Ethics Education in Pakistan

As the practice of medicine is shaping into a health industry in Pakistan leading to an increasing number of medical colleges in different parts of the country with greater production of young physicians every year. Most of these young physicians are equipped with adequate theoretical and practical knowledge but they lack an understanding of even basic ethical issues. This poses a threat to patient care, easily giving rise to unethical practices by the negligent physicians.

In Pakistan, due to rapid boom of the health industry over the past decade, there is an

increasing scope of bio medical research. This research being funded by international and national pharmaceutical companies, helps individuals and policy makers in improving their practices but all this happening in absence of sufficient ethical knowledge and training of medical graduates²⁶. This insufficient awareness in field of medical ethics combined with weak system of accountability against unethical practices in the country makes the situation even worse.

The first ever formal institutional level ethical department was set up at the Sindh Institute of Urology and Transplantation (SIUT), in 2004, called the, Centre of Biomedical Ethics and Culture (CBEC). It offer post-graduate courses and has been working as the only institution with a proper training on bioethics. It also offers two years masters degree²⁷.

This model of ethical courses at post graduate level should be followed at the undergraduate level. PMDC has advised a number of methods to teach medical ethics like lectures, seminars, workshops, tutorials, modern audio visual techniques etc. Bio ethicists are of the view that best way of teaching ethics is through Case-Based Learning, as it allows students to participate actively and do brainstorming²⁸.

The need for formation of a Medical Ethics department in every medical and dental college is beyond doubt. Medical ethics as an additional subject with no solid curriculum devised by PMDC, makes it an optional subject, either officially or at least in the perception of students, resulting in low attendance and poor compliance if the students²⁸. With advent of the medical ethics department, Medical Ethics should be taught in every year in collaboration with other subjects, making its application in every field of medicine. Mandatory exams should be conducted at the end of the year to assess and evaluate individual student's skills and logical reasoning²⁸.

At undergraduate level, an inter-disciplinary approach in teaching of medical ethics is the way

in which we shall be able to teach students how to make ethical decisions in clinical problems²⁹. Ethicists working in collaboration with the clinicians shall ensure proper training of students in the subject of medical ethics³⁰.

CONCLUSION

In a developing country like Pakistan, there is a dire need to form a centralized curriculum on medical ethics, based on cultural, religious and social requirements of the country. This PMDC curriculum should be taught religiously by the Medical Ethics department in every medical and dental college with a collaboration of ethicists and clinicians. PMDC booklet on Code of Ethics should be in-corporated in the examination with fixed hours dedicated to it in each academic year. Students should be evaluated by compulsory examinations at the end of each year. Through only these measures, our future physicians would be able to make wise ethical decisions in their clinical careers and research studies resulting in overall increased satisfaction of our patients.

RECOMMENDATIONS

PMDC booklet on Code of Ethics should be in-corporated in the in the examination with fixed hours dedicated to it in the academic year. Students should be evaluated by compulsory examinations at the end of each year.

Establishment of medical ethics department in every medical and dental college/university.

Teaching of medical ethics with a collaboration of clinicians with ethicists.

With more awareness of medical ethics, patient satisfaction will increase.

Disclosure

This article is a part of dissertation of Prof. Dr. Farhan Ahmed Majeed for his Masters degree in Medical Education at University of Health Sciences Lahore.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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