Quantum is a fundamental theory in physics which describes the nature at the smallest scales of energy levels of atoms and subatomic particles. By understanding of nature at the smallest structural level, physicists have now been able to solve a number of complicated unsolved problems. I have used this analogy to explain the fundamental causes of underdevelopment of ethics education at the grassroots level. I believe that if we need the solace in ethics education in healthcare, then we must amend the issues at this grassroots or quantum level of medical education.

Introduction

WHO defines ‘Health’ as “the state of complete physical, mental and social well-being”, and not merely the absence of disease. Newly developed educational concepts like integrated, inter-disciplinary and inter-professional medical education are making efforts to bring different aspects of health care together, to create a holistic approach to health care delivery. However, ethics education, that instills the humane aspect in medical practice has not received the place in curriculum that it deserves. Relating this to the current situation in Pakistan, the questions that need to be answered are: Why have not we succeeded in translating the importance of ethics in medical education? Why has not ethics education planned, implemented and evaluated appropriately, like other disciplines, over the decades of modern (patient-centric & technology-dominated) era of medicine?

Hence, this paper explores the barriers that have restrained the development of ethics education in Pakistan. Through observations and reflections from my experience as faculty (teaching ethics and surgery) and medical educationist in Pakistan and Saudi Arabia during last 15 years; the educational research that I have done during this time; and published evidence from local, regional and international journals. The issues identified here are shown on a continuum, from one extreme situation of apathy to another extreme of ideal. The continuum approach for creating solace in ethics education and recommendations emerging from this exploration may guide the development for medical ethics education in Pakistan.

Factors hampering or complementing Ethics Education

The exploration identifies factors that play their roles in development of ethics education in medical programmes, explained on a continuum (Figure). At one end of the continuum the individual factor becomes a barrier, hampering the development of ethics education, while at the other end, complements each other for ethics education to flourish. These factors include importance given by institutions, faculty for ethics education and learning resources (text and reference material) delivering ethics education.

The continuum of faculty for delivering ethics education

Teachers have an instrumental role at every level of course delivery. Hence, the faculty continuum for ethics education stands as a major factor in its development.

In Pakistan, at one end of this continuum, we have faculty from different disciplines who are forced to teach ethics in their institutes. They may belong to Forensic Medicine, Community Health Sciences, Family Medicine or one of the other areas in clinical or basic sciences. Then there are invited teachers from varying backgrounds like law, religion or general ethics, who may not have any insight into medical profession. Next are the role-models, faculty members known for their ethical practice, however, they may not have interest in teaching ethics. Better than the previous three are the faculty members with interest in teaching ethics who volunteer for the extra responsibility of ethics education. They may not have qualification or training in teaching ethics but have the motivation and commitment. Further up the continuum are the ethics qualified faculty members who are willing to teach ethics along with their primary discipline. The end of the continuum are healthcare professionals with postgraduate qualification and training in delivery of ethics education, specifically hired as teachers for providing ethics education.
The continuum of available text and reference material for ethics education

Development of medical ethics in Pakistan did not start as an indigenous process. It was acquired from western cultures, mostly UK and USA, along with the science subjects in curricula. However, unlike science subjects, medical ethics is highly entwined with the social and cultural contexts, which in Pakistan, is markedly different from the western world. Therefore, the textbooks and literature on ethics from the West may not be as productive in delivery of contextually relevant ethics education in countries like Pakistan as they would be in western countries.

The continuum of available text and referral material for students and faculty contain, at one end, books, monographs and articles authored and published in the West. Most of this is contextual to the western society, without consideration for other socio-cultural contexts. The other end of this continuum advocates locally published literature specifically developed for the context of undergraduate medical education in Pakistan. Between the two ends rests the text that relate to third world countries' scenario or regional context.

The continuum of importance given by institutions (managing, regulating or accreditation bodies)

The curriculum guidelines of Pakistan Medical and Dental Council (PMDC) and Higher Education Commission (HEC), statutory bodies regulating medical education, categorically direct institutes to include medical ethics in their formal curricula. However, to this date, ethics is neither being formally taught in most institutes in the country, nor any action has been taken in this regard by PMDC or HEC. This passivity towards implementation of ethics education reflects apathy of regulating bodies. This situation forms the downside end of the continuum of importance given by institutions to medical ethics. The other end is full recognition of medical ethics as a discipline in medical curriculum. This will also require institutes to acquire full-time faculty in a dedicated unit or department of medical ethics, similar to other basic and clinical disciplines.

Moving towards the Quantum of Solace

The quantum of solace in ethics education is a precise balance defining the comfort and humane feeling required between two entities (doctor & patient) for humanity to survive. If the quantum of solace is nil, then humanity is dead.

Ethics education has been a point of discussion in Pakistan for some time now. This is evident from the fact that most medical conferences afford forums where speakers make contributions in the field of medical ethics. Here are some of the efforts made in Pakistan towards creating a balance in undergraduate medical ethics education, the quantum of solace.

Faculty Development Initiatives

The Center of Biomedical Ethics and Culture at the Sindh Institute of Urology and Transplantation (SIUT), Karachi, is conducting postgraduate Diploma in Biomedical Ethics
and Masters programmes in Bioethics. One of the aims of these programmes is to develop qualified teachers, trained to impart knowledge and skills to medical students. Similar, though less structured, initiatives have also been taken by other institutes in the country.7

- **Curriculum Development Initiatives**

National Bioethics Committee, through Health Care Ethics Committee has developed national guideline for teaching ethics in undergraduate medical programmes. This project completed a couple of years ago, after 3 years of timeless efforts of committee members including bioethicists, educators and educationists.7 However, it has not been implemented yet, waiting for the PMDC and HEC for action.

- **Educational Research Initiatives**

There is some evidence from Pakistan that reflects on individual efforts taken by educators in undergraduate medical ethics.9,10 These efforts are few, limited to single institutes and rely on individual's opinions.

**Conclusion**

The exploration identifies areas in ethics education on continuums showing the current situation and what may inform the ideal situation. Addressing these issues will establish a quantum of solace in undergraduate ethics education in Pakistan. The ethics educators in Pakistan need to take the responsibility for developing these areas, creating a conducive environment. Following are some recommendations drawn from the continuum approach for creating quantum of solace in ethics education.

**Recommendations**

- The experts in the field of medical ethics in Pakistan must develop contextually relevant text books and other reading material, tailored to the needs of undergraduate learning outcomes.

- The PMDC and HEC should recognize Ethics as a discipline at par with other basic and clinical science subjects in medical education, making it mandatory for institutes to develop medical ethics units or departments within their structure.

- The PMDC, HEC and institutes should encourage initiatives taken by different institutes and organizations, ensuring availability of standardized curriculum, dedicated, qualified and trained faculty for providing contextual ethics education.

- Universities and colleges must ensure that teaching and assessment policies for medical ethics are as rigorous as for any other basic or clinical science subjects.

**References**

6. Shaikh A, Humayun N. Medical ethics in undergraduate medical education in Pakistan: towards a curricular change. INTECH Open Access Publisher; 2012.