

Chapter 3

Bioethics Education in India

Vina Vaswani and Ravi Vaswani

3.1 Introduction

Bioethics (and the ethics of interconnectedness) can be linked to the religions existing in India. Bioethics education in India has however languished for lack of proper vision, infrastructure, and trained personnel. This chapter is laid out in four distinct sections: the first section recounts a brief overview of religions in India and describes the philosophies of the various religions within the context of ethics; the second section describes bioethics education in the ancient health care systems of *ayurveda* (*Charakha samhita* and *Sushruta samhita*) and *siddha* systems of medicine; the third section deals with the status of bioethics education today, in the forms of unstructured, semi-structured, and well-structured ethics education programs; and the last section discusses the challenges to bringing ethics into the mainstream of conscious thought in higher education in India, at various levels—individual, institutional, and policy.

3.2 Religions in India

In this section, the reader will be given an overview of the different religions that co-exist in India, within the context of ethics. We will see how the religions gave rise to the earliest ethics in codified forms.

V. Vaswani (✉) · R. Vaswani
Centre for Ethics, Department of Internal Medicine,
Yenepoya University, Mangalore, India
e-mail: bioethics@yenepoya.edu.in

3.2.1 Understanding Hinduism

To get a comprehensive picture of bioethics in the Indian context, it is essential to have a glimpse of Hinduism as a religion. The Hindu scriptures are made up of *Vedas*, *Purānas*, and *Upanishads*. These form the backbone of the Hindu religious philosophy. The *Vedas* are believed to be the earliest (about 5000 BCE). They are a compilation of four volumes (*Rigveda*, *Yajurveda*, *Samaveda*, & *Atharvaveda*) and are believed to be divine in origin (not through human agency). A famous sage, Vyāsa was the first to classify and compile the oral version into written text, and it has largely remained unchanged since then.

The word *purāna* is derived from two words: *pura* meaning old or ancient; and *ana* meaning narration. The *purānas* were written in the form of stories. Even though they are ancient scripts, they are widely perceived as being applicable today. The common feature in these scriptures is the description of myriad gods, goddesses, humans, demons, animals, plants, and seas where no one is described as perfect. Even the faults and imperfections of the Gods are pointed out thus reinforcing the value of righteousness and justice. The essence of these scriptures can be seized by the following verse:

Ashtadasha purāneshu; Vyāsyā vachana hayam
Paropakārāya punyāya; Pāpāya para peedanam

“Benevolence is the highest order of sacredness and to hurt someone is the worst of sins in the world” (Paliwal 2008). This embodies the philosophy of Hinduism where virtues such as compassion and benevolence are deep rooted.

Upanishads are the distilled version of the *Vedas* and are also described as *Vedānta* (the end of the *Vedas*) implying that these are to be read at the end of the *Vedas*, or as an appendix to the *Vedas*. Some of the principles enunciated in these scriptures are ageless and are true even today. Bomhoff (2011) during his interaction with natives of Kerala (a southern state) in India refers to a *shloka* (short verse) that is often recited about human dignity and *good death*:

Anāyāsena maranam; vinā dainenya jeevana
To lead a life without pity, and court death without pain

The earliest reference to *ahimsa* (non-violence) as an ethical discipline has been found in *Chandogya Upanishad* where it is bracketed with truth (Harshananda 2008). Every living being (*ātman*) is a reflection of God (*paramātman*), which calls for observance of *ahimsa* and also to exhibit compassion towards one’s fellow living beings. Even though in the ancient times animals were sacrificed at the altar, it is *ātman* that was believed to be directly reaching the *paramatman*. Moreover, the animals were rendered unconscious before killing, so that the final event would be painless.

3.2.2 *Jainism*

Jainsim is a religion found mainly in India, and is attributed to the first *teerthankara* (enlightened soul) Rishabha, though many Jains contest this saying that Jainism has no beginning and no end. Mahaveera is the most well-known of the *teerthankaras*. Jains believe there is no one creator of the universe, and that the latter always existed. Souls have the job of finding their way back to the ultimate place (heaven) through personal toil and self-realization. Jains believe that all living beings in the cosmos live in a complex interconnected web where each life is intricately linked with each and every other. Thus the core beliefs are right vision, right knowledge, and right conduct. Jains follow a five-point ethical code: *ahimsa* (non-violence), *satya* (truthfulness), *asteya* (non-thieving), *brahmacharya* (celibacy), and *aparigraha* (detachment from materialism) (Harshananda 2008).

3.2.3 *Buddhism*

Buddhism as a religion was brought into existence somewhere near the sixth century BCE and is based on the teachings of the founder Siddartha (or Gautam Buddha). Similar to Jainism is the codified ethical conduct for every person embracing this faith. The ethical code (also known as the five precepts) includes prohibitions against killing, stealing, lying, sexual misconduct, and intoxication. Along the lines of Jainism but with less vigor, Buddhism also proscribes to *ahimsa* (non-violence) against all living creatures however primitive or advanced in the evolutionary stage. Buddhism also teaches that it is not merely the action that is good or bad but the intention and thought that makes it so (Dhammananda 2002). Nalanda University developed by Emperor Asoka in the third century BCE is one of the earliest educational institutions recorded. It went on to become the first monastic university in India, so it flourished until it was destroyed in the thirteenth century. In the second century CE, the proponent of Mahayana Buddhism, Nagarjuna, taught in this university. (Loizzo 2009).

3.2.4 *Christianity and Islam*

Christianity came to the Indian shores in the first century AD, when the apostle St. Thomas landed in the erstwhile Cranganore. (Neill 2004) By this time, small pockets of Jews were already in existence in Bombay and Cochin, who had migrated to India even before the destruction of the Second Temple of Jerusalem. Around about the fourth century AD, a large number of Christians families landed in Malabar region, having sailed in from Persia and Mesopotamia. From then on the Christian communities grew from strength to strength and effectively blended into the local societies and customs to become one of the main religions in the country in modern times. According to Neill, due to lack of credible evidence it is more likely to assume that Greek monism and India monism developed independent of each other,

and that neither had a significant impact on the other. The Christian philosophy and the ethics that emerged from this, such as respect for life, care of the sick and love for the fellow human being has remained essentially the same as that in the rest of the world.

Islam made a bimodal entry into India—the first in seventh century CE when traders landed along the Malabar Coast (now the state of Kerala) and then in the twelfth century through Mughal invasions from the north. There are three main settlements: immigrant settlers from the north-west (Sindh and Punjab), descendants of the Mughal dynasties (Central India) and people of Arab descent who came by sea and settled along the west coast of India (Arnold 1913). Since then, Islam has grown to become the second largest religion in the subcontinent. Islamic ethics are based on the teachings of the holy book, the Quran. These tenets include monotheistic worship; virtues such as humility, honor, and compassion; wise use of moneys; avoidance of wanton killings, abhorring adultery; and providing care for the needy.

3.2.5 Sikhism

The Sikh religion is a monotheistic religion founded in the fifteenth century CE. The founder was a learned scholar Guru Nanak (Harshananda 2008). The ethics of Sikhism has more to do with daily living than with the preaching of specified virtues or values. Human life is the most precious thing and therefore Sikhism discourages abortion, euthanasia, and suicide but is not against using contraception or organ donation.

3.3 Ethics Education in Ancient India

In this section the reader will be introduced to ethics education as taught in the ancient systems of medicine that until today have sizeable populations of believers.

3.3.1 Gurukul

A schooling system called *Gurukul* unique to India was being practiced in the ancient times. *Guru* means one who dispels darkness and *Kula* means family. Like an extended family, the pupil lived in the house of the guru with other students and learned from the Guru, not just the core subjects, but even life's skills of managing oneself. There was no monetary exchange between guru and pupil. This system was exclusive to India. Besides the medical subjects students were taught were grammar, moral science, logic, ethics, martial arts, and astrology.

3.3.2 *Ayurveda*

Ayurveda can be literally translated as the science of life (*ayu* = life span; *veda* = understanding). *Ayurveda* is a sort of distillation from one of the primary *Vedas*, the *Atharva Veda* (1500 BCE), which describes detailed methods in the approach to health, encompassing physical, mental, and spiritual aspects of health in the context of human interaction with the environment (Harshananda 2008). *Ayurveda* origins are attributed to the time Dhanvantri was sent to earth from heaven to propagate the practice of healthy living. It was later made more widely known by two famous practitioners: Charaka (a physician) and Sushruta (a surgeon). Even though controversy surrounds the Aryan invasion and the bringing of their texts, the *Vedas*, the fact remains that ancient India has been the recorded birth place of this traditional system of medicine.

Ethics was taught to students of *Ayurveda*, and they were exhorted to practice ethically as shown by the following text in the *Charaka samhita*: “He who practices medicine out of compassion for all creatures rather than for gain or for gratification of the senses surpasses all. No benefactor, moral or material, compares to the physician who by severing the noose of death in the form of fierce diseases, brings back to life those being dragged towards death’s abode, because there is no other gift greater than the gift of life.... He who practices medicine while holding compassion for all creatures as the highest religion is a man who has fulfilled his mission. He obtains supreme happiness.” (Pandya 2000).

3.3.3 *Siddha*

Before the Aryan dominance in the sub-Himalayan regions, there existed a system of medicine focusing on sanitation and treatment of diseases. This was the *Siddha* system of medicine. Unlike *Ayurveda*, the *Siddha* system relied heavily on metal and mineral preparations (Narayanaswami 1975). The *Siddha* system of medicine originated in South India (Tamil Nadu) believed to be founded by sage Agasthya.

3.4 Bioethics Education in India in the Present Day

This section describes the status of bioethics education as it is today. In a nutshell it can be said that ethical issues in biomedical research has come into the limelight due to the increasing number of clinical trials conducted by an increasing number of contract research organizations (CROs). While functioning of ethics committees (review boards) and ethical issues in biomedical research have been receiving greater attention since the last decade, bioethics education in general has languished. Structured and institutional academic courses with established curricula are few

(Azariah 2009), nevertheless, a start has been made and things can only get better from here.

Bioethics education in India can be discussed from the point of view of its structure and divided into three areas:

- awareness and sensitization to bioethical issues through the print media,
- semi-structured education in conferences and seminars organized by associations for ethics, bioethics, humanities, and
- structured courses in institutions and universities.

3.4.1 Awareness and Sensitization Through Journals and Print Media

The most significant contribution is from the *Indian Journal of Medical Ethics* (IJME) (formerly known as *Issues in Medical Ethics*). In 1993, the Forum for Medical Ethics Society (FMES), a registered body was formed by like-minded health care professionals, researchers, and ethics activists (IJME 2012). The *Indian Journal of Medical Ethics* is the brain child of FMES that started off as a quarterly journal on ethical issues in health care, sensitizing doctors and the lay public alike. Dr. Amar Jesani, founder of the Society and the founder-editor of the journal, is the most visible face of the Society, and is renowned as an ethics activist, both nationally and internationally. Since then, the IJME has been the sole dedicated platform for discussions and debates on ethical issues in the country with in-depth analysis from the Indian perspective. The *National Medical Journal of India* does also publish articles on ethics, but is more of a general medical journal yet adds significantly to growth of ethics in India.

3.4.2 Conferences and Seminars Organized by Associations

Indian Council for Medical Research (ICMR) is the regulatory body in the country for formulation, coordination, and promotion of medical research. The ICMR conducts training in bioethics and research ethics sporadically. It has a bioethics cell that is in the process of preparing a bioethics curriculum. The ICMR has conducted national and international workshops culminating in the production of guidelines for ethics committees, for human subject participation, and animal ethics committees (ICMR 2012). Besides this the ICMR also collaborates with premier institutions across the country to conduct 1-day or short training courses in biomedical research ethics. It sponsors bioethics conferences and training programs through funding.

All India Bioethics Association (AIBA) based in Chennai was established in 1997 and held the first international seminar in bioethics. The significant awareness amongst the teacher fraternity in bioethics in the southern state of Tamil Nadu was the joint efforts of Jayapaul Azariah and Darryl Macer (UNESCO Bangkok).

This seminar titled Bioethical Management on Biogeo-resources was conducted in Chennai in 1997, following which the conference organizers published a book *Bioethics in India* (Azariah et al. 1998). In the editorial preface, the authors' recommendations included the teaching of bioethics, encouraging forums for publication in bioethics, and formation of a national level bioethics society.

Similarly, the Centre for Studies in Ethics and Rights (CSER), created through the formation of a non-governmental organization called Anusandhan Trust has since 2005 been developing training programs in ethics and human rights for students and professionals from different disciplines including counselors and lawyers. They also take students as research fellows and guide them in research projects on ethics. This has resulted in an increase in bioethics research and publication.

The National Bioethics Conference (NBC) is a biennial event conducted by the *Indian Journal of Medical Ethics* since 2005 with the objective of bringing all stakeholders involved in bioethics in the country onto a common platform to share their experiences, innovations, and vision. The inaugural conference met with instant success and many institutions are now active co-organizers of the event, and presently this is the biggest bioethics event in the country.

Since 2011, the Centre for Ethics at Yenepoya University conducts an annual continuing medical education (CME) program in bioethics. The first 2 years saw the Indo-German CME on Clinical Ethics Consultation. Both of these 1-day CMEs were conducted in collaboration with the Johannes Gutenberg University, Mainz, Germany, with Prof. Dr. Norbert W. Paul as the chief resource person. The objectives were to sensitize health care professionals to the practice and models of clinical ethics consultations in the developed countries and to make them aware of a need for initiating a similar consultation process in our hospitals. In 2013, the Centre organized an international CME on public health ethics—the first of its kind in India. Prof. Angus Dawson of University of Birmingham, Birmingham, UK and Dr. Amar Jesani, Anusandhan Trust, Mumbai, India were the chief resource persons.

3.4.3 Structured Courses in Universities and Higher Education Institutions

The medical curriculum in India has been prescribed by the Medical Council of India (MCI) ever since it was created as an act of parliament in 1956. The curriculum across medical schools in India has essentially remained unchanged since then. Medical ethics, as it is called, merits a mere 6–8 h of didactic lectures, at a stage when the medical student has rudimentary clinical experience. The curriculum has always stressed codified ethics: the do and do nots for a doctor and how to avoid medical negligence. Theories of ethics and ethical concepts such as justice, human dignity, and personhood receive no mention.

Some of the reasons for the backburner status for bioethics, especially in medical schools, are the lack of research in ethics, lack of trained personnel to teach, and lack of main stream courses in bioethics at the masters degree level. This again can

be explained by the rigid stand taken by the MCI which lays down fixed faculty strength, fixed number of hours of teaching, and leaves little space for individual institutions to be flexible and innovative. Until 2010, even in the diploma or post-graduate diploma courses offered by a few institutions, ethics was embedded in medical law, and other law related courses, and a dedicated bioethics curriculum was singularly lacking.

3.4.4 Current State of Bioethics Education

The Federation Internationale des Associations Medical Catholique (FIAMC) established its Biomedical Ethics Centre (FBMEC) in Mumbai, India in 1981. Since 2003 it conducts a certificate course in health care ethics. This once-a-month eight capsules (half-day sessions) program covers topics of interest such as the ethics of abortion, transplantation, HIV, and other clinically relevant topics.

For many years, St. John's National Academy of Health Sciences, Bengaluru, India has been teaching ethics to undergraduate students. In the first phase, the focus has been on values in the second principles of bioethics and the final phase on clinical ethics. Also, there is an interns' forum for ethical case reviews. The Christian Medical College, Vellore, India has a similar semi-structured approach to medical ethics while keeping in mind the guidelines laid down by the MCI.

Besides these, there are several law institutions that offer a postgraduate diploma in medical law and ethics (The Institute of Law and Ethics in Medicine, a subsidiary of the National Law School of India University, Bengaluru; James Lind Institute, Hyderabad), but these are oriented more to the subject of law rather than bioethics.

In January 2011, Yenepoya University, Mangalore, started the first formal, structured academic course in bioethics. This is the Postgraduate Diploma in Bioethics & Medical Ethics (abbreviated to PGDBEME). The course runs for 1 year and has six contact programs on weekends of alternate months. The curriculum was designed by one of the authors upon her successful return after completion of a Masters in Bioethics (under the European Union's Erasmus Mundus Initiative) and drew extensively from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Bioethics core curriculum proposal with modifications to suit the national requirements.

Participants have to attend all six contact programs. The coursework relies heavily on self-directed learning using group discussions, role-plays, reflective sessions, and online forum discussions (using the university's e-portal YENGAGE). Students have to submit six assignments online and complete one project which is presented during the oral test. Summative assessment is done by conducting an essay-type theory paper. Dr. Sridevi Seetharaman (an Erasmus Mundus Bioethics Alumnus) of the Swami Vivekananda Youth Movement, Saragur, Karnataka, India serves as an external examiner. She is one among a panel of the handful of qualified bioethicists in the country.

In the same year, in November 2011, in collaboration with the Department of History, Philosophy & Ethics in Medicine, Johannes Gutenberg University, Mainz,

Germany, the Centre for Ethics, Yenepoya University started the Certificate Course in Clinical Ethics Consultation (CCCEC). This is a 6-month course (two 5-day contact programs) with the objective of familiarizing the Indian health care providers with the concept of clinical ethics consultation as it is practiced across the globe while keeping local requirements in mind. The Indian scenario is covered by senior faculty (practicing bioethicist-clinicians) drawn from across the country and the clinical ethics consultation model is covered by Dr. Norbert Paul from the Johannes Gutenberg University. Participants have to submit online assignments that are evaluated and at the end, the participant makes a presentation of a project/research paper to a panel of experts. Since 2013 this certificate course has been upgraded to a 1-year Postgraduate Diploma in Clinical Ethics (PGDCE).

There is a need to develop and strengthen healthcare ethics educational and training programs in India. There is also a need to facilitate exchange of international PhD scholars so as to give a boost to trans-cultural research activities. Taking the first step in this direction, a memorandum of understanding (an agreement on collaboration) was signed in May 2011, by the Centre for Ethics, Yenepoya University with Center for Healthcare Ethics, Duquesne University, Pittsburgh, USA. Prof. Dr. Henk ten Have (Duquesne University) and Prof. Dr. Vina Vaswani (Yenepoya University) are the coordinators for the collaboration.

In June 2011 (the funding was approved in 2008; the course began 2011), the Indian Council of Medical Research (ICMR) launched its postgraduate diploma in Bioethics under the project Centrally Co-ordinated Bioethics Education for India. This is a joint venture of the ICMR and the Indira Gandhi National Open University (IGNOU) funded by the Fogarty International Center, National Institute of Health, Bethesda, Maryland, USA. The program implementation is done through the National Institute of Epidemiology, Chennai which is an arm of the ICMR. Dr Nandini Kumar, former Deputy Director General of ICMR and herself an alumnus of Fogarty's International Program is the main force behind this activity. The eight modules are entirely covered online.

Since May 2012, the Centre for Ethics, Yenepoya University has started a 5-day Short Intensive Course on Ethical Issues in Biomedical Research with the objective of training existing and potential members of institutional ethics committees and also health care professionals who are actively engaged in clinical trials. This is an annual (once-a-year) course. The faculty is drawn from the Harvard School of Public Health, Boston, USA, Centre for Studies in Ethics & Rights, Mumbai, India and other premier institutions across the country, including a senior faculty from the corporate sector involved in clinical trials. A former deputy director of the ICMR is also on board as a faculty member.

3.4.5 Future Plans

Going by the Vision 2015 document of the MCI (MCI Vision Document 2015, 2011), the prescribing authority for standards in medical education, there is little scope for institutions to take a lead in starting new courses in bioethics. Alternately,

it is left to the leadership of the forward looking autonomous educational institutions to take the lead and make a difference. The Centre for Ethics, Yenepoya University has plans to start a masters degree in bioethics by 2014 and a doctoral degree by 2015. Several other institutions are also planning to make a bid for a masters in bioethics, with international collaboration and funding from National Institute of Health (NIH), Bethesda, USA.

3.5 Challenges Faced Going Forward

So far we have seen how the Hindu religion, its offshoots, and other imported religions created ethical codes that dictated how the people of the region lived their lives and received education about ethics through religion. We have also observed how the winds of change have brought in a few, albeit significant, developments in the form of structured bioethics teaching at the national and international level. The goal is far from achieved. What are some of the challenges faced by bioethics educators in India? This section attempts to analyze the challenges to the development of bioethics education in India at individual, institutional, and policy levels.

3.5.1 Individual Resistance to Change

There are two ways in which medicine (at least the allopathic version) is practiced. One relies heavily on scientific rigor obtained from print media (called evidence-based medicine in its new avatar). The other relies on intuition, experience, and feelings (what is referred to in a lighter vein as eminence-based medicine). Irrespective of the way of practice, both schools arise from a common traditional teaching-learning model that stresses a doctor-centered approach and largely ignores patient values, emotions, and the importance of human interaction.

The humanities have been neglected in India by medical scientists, because of its perceived non-scientificness. Resurgent ethics and other humanities related subjects threaten to break the paradigm and give the patient her proper place at the center of health care. Increasing patient autonomy is seen as eating into the physician's freedom to choose on behalf of the patient. Hence subjects like ethics are not very popular. Individual doctors, nurses, and other health care stakeholders need to change the lens from which they view their professional world. Only then will the widespread resistance give way to broad acceptance of bioethics as a mainstream subject in health education.

Most medical college faculty members in India are familiar with quantitative scientific inquiry which differs from that of ethical inquiry, which tends to be more qualitative in nature. The former is based on traditional controlled environments, measurable events, and hard statistics, whereas the latter is less controlled as often themes are not quantifiable and depend more on reflections. These educators are

uncomfortable dealing with research based on qualitative processes. Moreover, the idea of art (and thereby the humanities) intermingling with the medical sciences is relatively new in our country, and not widely accepted.

Medical ethics in most medical colleges is taught by forensic medicine faculty members whom, being comfortable with the jurisprudence lens, are unable to separate the legal layers from the ethical. They bring in the experiential legal angle from court rooms and in the end emphasize outcomes rather than the processes of ethical deliberations. All of the 6–8 h of medical ethics teaching is didactic. Moreover, forensic medicine is regarded as a non-clinical subject giving students the impression that ethics is not clinically relevant. Since the first author taught forensic medicine for 15 years before training in bioethics, she knows that most ethical discussions begin with ethical questions but get derailed by legal and procedural ramifications with conclusions coming from evidence of the law and not from ethical deliberations. India needs more educators trained in bioethics and only then can we expect more structured programs that will meet the needs of the healthcare professionals. Not only that, we also need more clinician-educators trained in bioethics, since nowhere else is role-modeling so crucial as in ethics education.

The words of Mahatma Gandhi ring very true in this context: “We have to be the change we wish to see.” The process is bound to be slow and frustrating. Repeated stoning of a thick glass will produce no visible change. Nevertheless, the cumulative effect of increasing numbers of invisible cracks will at some point cause the entire glass sheet to shatter. Analogous to this, a start has been made by at least a few institutions that are relooking at bioethics courses. It is only a matter of time before the tide swells.

3.5.2 Institutional Resistance to Change

An important goal of teaching, especially medical education, is to get students to critically evaluate the issues. Modern education in India is more focused on rote memorization of content than reflection on values and therefore, is unable to orient students toward positive values (Jothi Rajan et al. 2008). The values and personality of the teacher rather than the system become crucial to the success of the educational goals.

Ethics education in India has been nurtured on a curriculum that is archaic, with just about 6–8 h in the entire medical curriculum of 5 years. It has remained largely unchanged even after India gained independence in 1947. The curriculum content addresses codified ethics, duties of a doctor and defensive practice, and largely ignores ethical theories, hermeneutics, ethics of research, and ethical issues at the beginning and end of life. The Medical Council of India (MCI) attempted to overhaul the curriculum across medical schools in India through the publication of its document—Vision 2015. The attempt at revision is laudable, since such an exercise has not been contemplated for several decades. Nevertheless, even this future-looking document falls short in giving bioethics its due place in the undergraduate

curriculum. The word *bioethics* does not appear even once in the entire document. The words ethics or medical ethics are mentioned in five places.

If we analyze the Vision 2015 document of the MCI, we find the following. The concepts rooted in the minds of the architects are still embedded in the duties of a doctor and doctor-patient relationship. It does not put the patient in the center of the health care scenario (patient autonomy and personhood). The Vision mentions about new masters degrees in courses such as Family Medicine and Hospital Administration but does not talk about starting of masters in bioethics. The need of the hour is to develop a pool of ethics educators trained in bioethics. The vision document missed a good opportunity to realize this.

The work is cut out for the present-day ethics educators to convince the MCI to revise its stand on bioethics education. The MCI has to produce revised regulations making it mandatory to teach bioethics in all perspectives, and not just duty-based deontologic ethics. The graduate curriculum for bioethics needs to be strengthened by more hours, more interactive teaching, and more integration across disciplines (including clinical departments). The new bioethics curriculum, if it has to be meaningful and achieve the objective of extensive application of bioethics in medical practice must address reflective processes, value clarifications, and value analysis. Newer teaching technology and methodology need to be introduced to understand experiential learning and promote non-threatening arguments. If the MCI does this, it will ensure that modern bioethics education in India will be uniform and at a minimum standard.

For this to be successful there should be extensive curriculum building workshops followed by training of the bioethics educators. This will ensure minimum standards in the teaching-learning process. Mere allotment of enhanced hours for medical ethics teaching, as has been suggested in the Vision 2015 document, has the peril of reducing it to a notional exercise.

The role played in disseminating bioethics to a huge number through (1) the Indian Journal of Medical Ethics, (2) the ICMR with policies and training programs, (3) the advocacy by groups like SAMA (Delhi), CEHAT (Mumbai), (4) institutional leadership of St. John's (Bengaluru), Christian Medical College (Vellore), and (5) Yenepoya University (Mangalore) are praiseworthy. The current need is to establish more centers, departments, and the starting of graduate degree programs (masters and PhD) in bioethics. Only then will bioethics education and research be taken to greater heights and the knowledge thus created can be applied in clinical settings.

3.5.3 Resistance at Policy Level

Bioethics teaching does not happen in a policy vacuum and like everything else requires processes in place. Many countries have a president's Bioethics Council which advises the president on issues affecting and impacting national policies from an ethical dimension. This is lacking in India. In the days to come, in a country mired in scams and corrupt practices, the change has to come from the top, and this can happen through greater transparency and ethical counsel.

3.5.4 Global Networking

Some changes happen fast especially those related to technology and to market economies. Clinical trials, many conducted by multi-national companies, have made a foray into developing countries which have succumbed to the market forces. This has forced research ethics and review committees into the forefront in some countries, including India. At the same time, bioethics as a subject does not enjoy that kind of patronage without a market driving force. India, and other developing countries, need to lean more on countries with strong bioethics education, and these in turn need to provide more support, both in terms of expertise and curriculum development. UNESCO is already supporting developing countries in a big way, but the way forward should also include institutions in ethics-resource-rich countries to actively engage in the teaching-learning process. The Erasmus Mundus mobility program of the European Union, Wellcome Trust (UK), University of Toronto (Canada), Fogarty International Center (NIH, USA), and Kennedy Institute for Ethics (USA) are some of the institutions that have been doing notable work in creating a niche for bioethics in developing countries by providing education, training, or research support opportunities.

3.6 Conclusion

Bioethics is an old and hoary tradition in India and was taught in the ancient universities like Nalanda. In modern times, however, bioethics education has not received due recognition and development in higher educational institutions of any discipline or field. Structured courses are conspicuous by their absence. Quality research, even though happening due to awareness created by ICMR, CSER, and few other NGOs, is not being translated into policies. Policy makers have shown a systematic lack of vision.

The first need is for institutions (especially universities) to create formal, structured academic courses in bioethics. Next, we need more ethics educators trained in bioethics with greater emphasis on curriculum development and institutional support. Hopefully the starting of new courses will provide the substrate for this to happen. Especially in health care education, the policy makers have to make huge changes in their approach to ethics. The focus has to shift from duty-based medical ethics to the broader aspect of bioethics that will include areas like patient autonomy, appreciation of human dignity, ethical decision-making at start-of-life and end-of-life, ethics in biomedical research, and concepts of ethical theories. Finally, there is need for a firm commitment at all levels to encourage and support ethics education. Unless provision is made for this through set goals and objectives, then consistent, sustainable change towards ethical educational leadership may remain a distant vision. The way forward is the ethics way.

Acknowledgments Vina would like to express her gratitude to the Erasmus Mundus program (Master's in Bioethics), and the faculty teachers for providing an opportunity of a lifetime and to Yenepoya University, Mangalore for opening a window to ethics education in India.

References

- Arnold, T. W. 1913. The spread of Islam in India. In *The preaching of Islam: A history of the propagation of the Muslim faith*. 2nd ed., ed. T. W. Arnold, 193–221. London: Constable & Company.
- Azariah, J. 2009. Bioethics science. Is it? *Journal of Medical Ethics and History of Medicine* 2:18.
- Azariah, J., H. Azariah, and D. R. J. Macer. 1998. Chennai statement on bioethics. In *Bioethics in India: Proceedings of the International Bioethics Workshop in Madras: Biomanagement of biogeo-resources*, ed. J. Azariah, H. Azariah, and D. R. J. Macer. Christchurch: Eubios Ethics Institute. <http://hdl.handle.net/10822/546306>. Accessed 9 Nov 2012.
- Bomhoff, M. 2011. Long-lived sociality: A cultural analysis of middle-class older persons' social lives in Kerala, India. Doctoral thesis, Leiden University. <http://hdl.handle.net/1887/18139>. Accessed 12 Dec 2013.
- Dhammananda, K. S. 2002. Buddhist morality and practice. In *What Buddhists believe*. 4th ed., ed. K. S. Dhammananda, 204–247. Kuala Lumpur: Buddhist Missionary Society Malaysia.
- Harshananda, S. 2008. *A concise encyclopedia of Hinduism*, 62–63, 86–87, 227–230. Bangalore: Ramakrishna Math.
- Indian Council for Medical Research. 2012. www.icmr.nic.in/bioethics/cc_bioethics/workshops.htm. Accessed 5 Nov 2012.
- Indian Journal of Medical Ethics. 2012. ed. A. Jesani. <http://www.issuesinmedicalethics.org/>. Accessed 5 Nov 2012.
- Jothi Rajan, M. A., T. Mathavan, A. Thaddeus, V. F. Latha, and J. A. Jecinta. 2008. Value education: Treasure of a nation. In *Asia Pacific perspectives on bioethics education*, ed. Darryl R. J. Macer, 71–76. Bangkok: RUSHSAP UNESCO.
- Loizzo, J. 2009. Kalacakra in Nalanda tradition: Science, religion and objectivity in Buddhism and the West. In *As Long as space endures: Essays on the Kalacakra Tantra in Honor of H. H. the Dalai Lama*, ed. E. A. Arnold and R. A. F. Thurman, 333–367. Ithaca: Snow Lion.
- Medical Council of India Vision 2015. 2011. <http://www.mciindia.org/tools/announcement/MCI-booklet.pdf>. Accessed 12 Nov 2012.
- Narayanaswami, V. 1975. *Introduction to the Siddha system of medicine*. 1st ed. Madras: Anandam Research Institute of Siddha Medicine.
- Neill S. 2004. *A History of Christianity in India: The Beginnings to AD 1707*. 1st ed. Cambridge: Cambridge University Press.
- Paliwal, B. B. 2008. Puran: Introduction and importance. In *Message of the Puranas*, ed. B. B. Paliwal, 9–11. New Delhi: Diamond Books.
- Pandya, S. K. 2000. History of medical ethics in India. *Eubios Journal Asian and International Bioethics* 10:40–44. <http://www.eubios.info/EJ102/EJ102E.htm>. Accessed 10 Nov 2012.