**Teaching Reproductive Ethics to Medical Trainees- What, When, How?**

**Introduction**: To a medical teacher, study of bioethics is one matter. Its translation into teaching clinical subject like gynecology and obstetrics to postgraduates and undergraduates is quite another. Principal pillars of bioethics- justice, beneficence, non-maleficence and autonomy are to be woven into day-to-day topics where the sciences like pathological, surgical and medical aspects are at a center stage. Also, the discourse in medical ethics having originated mainly in the west, its relevance in our society may be unclear to the students here in India. Lastly the objective nature of exams and shortage of time make the task more difficult.

Here we discuss the case study of reproductive ethics as required in Indian settings.

Gynecological diseases, fertilization and pregnancy related pathology comprise major curriculum in obstetrics and gynecology. The subject also deals with women’s sexuality and reproductive health, both of which are governed and controlled by society. For generations, physicians have debated on issues like when an individual should be considered able to make reproductive and sexual choices. Our laws like MTP act have stringent criteria for pregnancy termination. There is no space for termination of pregnancy for a woman who has not been able to negotiate contraceptive use. An anomalous fetus will have to be carried to term if the deadline of 20 weeks is missed. The honorable Supreme Court has put the ball in doctors’ court to resolve such applications by citizens. On the other side, a person younger than 18 years cannot be advised contraceptive use as POCSO act criminalizes sexual activity before the age of 18 years.

For men, sexual freedom and domestic dominance is a birthright. Reproductive choices like vasectomy are their own. Not so for women! Almost every gynecologist must have faced situations where an adult woman’s private decisions about sexual health are handed over to the family against all personal beliefs and legal provisions. This gender bias exists in all sociocultural strata.

On the other side, gynecologists have been party to the heinous crime of female feticide.

This makes it critical that reproductive ethics are taught to undergraduate and postgraduate students of gynecology and obstetrics with specific case discussions or as problem based learning.

When western literature on reproductive ethics was searched, reproductive technology and human rights, fetal neonatal problems of IVF babies, donor gamete related issues and surrogacy were the commonest.(1) Professional duty, confidentiality, veracity in cases of HIV medicine, teenage pregnancy were the principles dealt with. (2) Actually, arrival of HIV and AIDS not only caused huge changes in clinical practice; but also major changes in the public policy towards the developing countries with HIV burden. (3)

In teaching bioethics, the scope of the term ‘Reproductive Ethics’ could be effectively widened to include reproductive and sexual health issues for culture specific teaching.

Personal ethics strongly dominate physicians’ clinical decisions. In a survey published in 2007, in USA, 52% physicians objected to abortion for failed contraception, and 42% were against offering contraception to adolescents without parents’ knowledge. (4) So, not only Indian but even western physicians are governed by their moral ideas and may decline otherwise potentially lifesaving procedure like pregnancy termination even if the clients might resort to unsafe abortion. Though it’s a well-known fact that lack of woman’s autonomy causes most unwanted pregnancies, safe abortion is not available to many. Marital rape is not yet accepted as an offence in India. In such a scenario, assertion of woman’s autonomy seems far-fetched.

With all these handicaps and challenges faced by women, it may appear that physicians are almost like saviors to their patients and duty-bound to protect them. So paternalistic approach may be taken by a well-meaning physician. This approach is contrary to the principle of autonomy. At the same time while treating a patient in an ethically conscious, and empowering way, an important difference between health seeking culture in Indian compared with the western societies is to be kept in mind. Our patients treat us as gods. Especially, rural or relatively less educated patients leave decision making to the treating physician. It is not a healthy approach because the complexities of reproductive and sexual health issues. One of the reasons why advice on reproductive and sexual health fails to make impact is that medical teachers do not discuss the complexities of reproductive and sexual health. As a result, the practitioners fail to offer effective solution to women with diverse familial and social issues. Empowering a patient to make her own decisions is the best way.

Possible divisions of reproductive ethics for purpose of teaching: Macro ethics topics should cover health systems response and health policies. Micro ethics should cover personal belief systems and circumstances respectively while discussing ethical issues and dilemmas.

It would be a good idea to also divide the reproductive health topics into Macro ethics and Micro ethics as put forth by Barkin in the context of health care.(5) Reproductive micro ethics would cover issues like consent, autonomy, embryo preservation, surrogacy, reproductive rights. The interface here is between patient and doctor, or participant and researcher. The field is family at most times. Macro ethics would deal with systemic issues like resource allocation, laws for women that govern their reproduction and heath, policy measures etc. that broadly govern and determine health care access and or denial.

**The what, when and how of teaching-**

Case based learning is much more interesting for students than didactic lectures. Here some examples of reproductive ethics are presented that can be taught from first year subjects like Anatomy, second year subject of forensic science and third year subjects like Gynecology. Lifecycle approach is a good model to go by.

**Embryonic life**: Concept of beginning of life as understood in different societies is to be discussed during teaching fertilization and fetal development. Personal belief systems become micro ethics. The macro ethics here would be the acts that govern legally permissible termination of pregnancy. Female feticide that has been a curse on our society is another aspect, which must be highlighted here besides in lectures on the act. Interactive teaching with imaginative use of video clips, blogs, essays and poems reach not only the brains but the hearts too.(6,7) Anomalies can be discussed with organogenesis in anatomy. One of the most empowering Ted talks by a mother about her anomalous child is that of Sarah Gray. It conveys empathy, respect for the unborn and altruistic act by a mother in the midst of personal tragedy. It is a ‘must watch’ for all medical students. (8)

**Teenage**: Consent is integral to any medical transaction between the provider and client. Implied consent in invasive clinical examination in girls and women is taken for granted. It requires to be discussed in initial years when interaction with patients starts. Consent is also important part of surgical procedures. While teaching postgraduates, role play of consent procedures followed by discussion could highlight how autonomy slips from woman’s hands when it comes to reproductive decisions. A discussion on how the trainees themselves handle tricky situations around consent is very valuable exercise.

Use of contraception by young adolescents has become a taboo after the Protection of Children fro Sexual Offences act has been enacted. Discussion of the act is part of macro ethics concerning forensic gynecology. The debate on appropriateness of discussing contraceptives with adolescents becomes micro ethics topic.

**Reproductive age**: Topics like medical termination of pregnancy arouse diverse thoughts and emotions in young minds of students depending on their faiths. Some sects advocate against performance of abortions. Discussion around personal choices has never found space in teaching. But personal beliefs don’t go away by not discussing. Philosophy is an integral part of bioethics and vocalizing beliefs in an unthreatening atmosphere is integral to growth. Eugenics can be discussed here. Many of our patients discover anomalous fetuses after the permissible age of pregnancy termination. The debate on rights of the unborn, beginning of life has a place here in postgraduate teaching.

Various social schemes like Rajiv Gandhi Jeevandayee Arogya Yojana, Janani Shishu Suraksha Karyakram, Janani Suraksha Yojana underline the macro ethical aspects of public health policy.(9) These can be discussed under justice.

Respect is understood in a very narrow sense in medicine. Respect for diversities and cultural compatibility is missing. The Cultural Competence Continuum (10) requires to be explained by examples approach to reproductive problems of patients of different faiths. Bioethics grand rounds are a way to speak out one’s own dilemmas that may arise out of cultural unfamiliarity. Incentives for family planning procedures to doctors, nurses and so called motivators are policy issues that can be highlighted. Coercion, conditional approach to MTPs with forced contraceptive usage can be discussed.

Hysterectomy is taught during lectures as well as in clinical posting. One of the very controversial issues surrounding reproductive health of girls is hysterectomy in young mentally challenged girls. The bioethical aspects here are micro ethics like individual’s lack of ability to consent or refuse surgery, non maleficence and beneficence. These terms can be elaborated. Parental angst and distress about hygiene, sexual abuse and pregnancy vis-a vis risk, pain suffered by girls is a very sensitive issue. Less invasive treatment options can be discussed. Misuse of state health insurance policy by doctors and the booming business of hysterectomies can be discussed under both micro as well as macro ethics. (11)

Commerce of assisted reproduction is the foremost bioethical topic discussed with respect to reproduction. ICMR guidelines and laws governing ART world over are important for postgraduate students and fall under macro ethics. Ethical issue of autonomy and justice around enrollment of surrogate mothers should be taught. Donor eggs, donor semen and ethics of confidentiality should be discussed. Adoption procedures and rights of adoptive children should be part of teaching in obstetrics and neonatology.

Maternal mortality is an important topic in Obstetrics and Gynecology. Gender analysis of maternal mortality reveals numerous rights violations in personal spheres of women. This insight will help young trainees to address the cases with empathy.

**Research ethics**: Research ethics need to be discussed with postgraduate students. Case study of ethics violations in HPV vaccine trial (12) is an apt example. HeLa cell line controversy, Tuskigee trials are stark examples of autonomy and justice respectively. Movies like ‘Miss Evers’ Boys’ are the best ways to discuss the issues and teach the principles.

**Violence against women**: Violence against women is finding mention in textbooks as well as examination papers in Obstetrics and Gynecology. It is a welcome move on the part of various national and international bodies like Royal College of Obstetricians and Gynecologists, American College of Obstetricians and Gynecologists, Federation of Obstetric and Gynecological Societies of India. Women specific laws like The Protection of Women from Domestic Violence Act, 2005, The criminal law amendment act 2013, PCPNDT act should be discussed from gender justice point of view. These acts uphold the fundamental rights to life and security and should be part of macro ethics in Forensic gynecology. It should be discussed in undergraduate and postgraduate teaching as numerous students who may enter family practice after graduation should be able to carry out their mandated duties towards survivors of violence.

Obstetric violence is a recent term, which encompasses dehumanizing treatment and over medicalization in labor, unconsented episiotomies, rising rate of cesarean sections. World Health Organization has acknowledged the need to eliminate birth abuse. (13) It is a micro as well as macro ethical issue with respect and autonomy on one hand and laws on the other hand. Venezuela, Argentina, Porto Rico already have laws addressing the same. These are also every day issues for residents and even undergraduates attending clinical posting. Debates and problem-based discussions can arouse dormant sensitivities among trainees.

**Hospital management:** Biomedical waste is at the center stage today in hospital practice. It also is an environmental ethics issue that postgraduate students must be conscious of. It falls into macro ethics category.(14) AN interesting way to inculcate this is to conduct poster competitions on the theme and then to use them as display. Professionalism and respect, alternative dispute resolution are some related skills that a trainee should learn.

These are only a few examples where bioethical principles can be underlined within day-to-day teaching. It is important that today’s teachers prepare a repository of relevant bioethical examples for teaching medical subjects so that students’ learning is well rounded. Journal keeping and narrative writing helps affirm the ethical principles.

**Conclusion**: As medical science advances, newer bioethical questions emerge in all medical subjects. The teachers will be able to make bioethics interesting if they add discussions on these questions and dilemmas to their daily teaching in an interactive manner. It will stimulate the students to apply bioethical principles to their patient interactions and learning.

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