Effect of religions on ethical issues including end of life consideration, genetic counseling, abortion, artificial reproduction and organ donation

International regulation
Obtaining and use of genetic data have several particular implications for the rights of the patients and their relatives and frequently practitioners and researchers face some new conflicts to which law and ethics try to give an answer. Some countries have enacted national laws related to genetic analysis. At the international level a great efforts have been done to develop a common regulatory framework in the field of genetic diagnosis, therapy and research. The laws of different countries and opinions of people of different societies are fundamentally determined by religion.

End of life consideration (euthanasia)
It must be made a clear distinction between passive and active euthanasia.

Catholic Church – against euthanasia but they are forced to fight against pluralism of society
United States
Roman Catholic Healthcare institutions in the United States face a number of threats to the integrity of their missions including the increasing religious and moral pluralism of society and the financial crisis many organizations face. These organizations in the US often have fought frequently to avoid being obligated to provide interventions they deem intrinsically immoral, such as abortion. Such institutions no doubt have made numerous accomodations and changes in how they operate in response to the growing pluralism of our society, but they have resisted crossing certain lines and providing particular interventions deemed objectively wrong.
Belgium
Catholic Hospitals in Belgium have responded differently to pluralism. In response to a growing diversity of moral views and to the Belgian Act of Euthanasia of 2002, Catholic hospitals in Belgium now engage in euthanasia. This essay examines a defense that has been offered of this practice of euthanasia in Catholic hospitals and argues that it is misguided.

Genetic counseling
Definition of genetic counseling: it must preceed and follow genetic tests and/or genetic screening. This is a consultation process provided by a well skilled expert in order to give information about risk of occurrence of a genetic disorder in a family, about advantages and/or risks of human genetic tests, highlight the possible consequences of negative and positive results and give help in understanding the nature of the disease in question.
Cave! The geneticist gives individually suited information, answer the questions of the patient/parents/relatives, still offering the decision to be brought by the affected family. This is the so called: „information-directed counseling”.

Abortion
Using methods of prenatal diagnosis makes possible to prevent the birth of an affected offspring in families at high risk of genetic disorders.
Detecting an affected foetus the termination of pregnancy is indicated from medical reason, but the couple’s hand is the right to make a decision.
Abortion is forbidden under normal circumstances by nearly all the major world religions.

Roman Catholic Church position
Official position of the Roman Catholic Church that abortion under any circumstances including abortion to save the life of the mother should be prohibited. The underlying motive
of the Roman Catholic Church’s abortion position as an attempt to protect the innocent fetus from deliberate death and to justify the Church’s application of protection from deliberate killing to those who are innocent of aggressive action.

**Islam**
Traditionally abortion was not deemed permissible by Muslim scholars.

**Shiite scholars** considered it forbidden after implantation of the fertilized ovum. **Sunni scholars**: have held various opinions on the matter, but all agreed that after 4 months gestation abortion was not permitted.

**Classical Islamic scholarship**: considered threats to maternal health as a reason for therapeutic abortion. Recently scholars have begun to consider the effect of severe fetal deformities on the mother, the families and society. This has led some scholars to reconsider the prohibition on abortion in limited circumstances.

**Iran**
The therapeutic abortion law passed by the Iranian Parliament in 2003. **This law approved therapeutic abortion before 16 weeks of gestation under limited circumstances including medical conditions related to fetal and maternal health.**
Recent measures in Iran provide an opportunity for the Muslim scholars in other countries to review their traditional stance on abortion.

**Artificial (assisted) reproduction: in vitro fertilization (IVF)**
Reproductive therapeutic procedures include in vitro fertilization (IVF)- embryo transfer, spermatozoa, oocytes, embryo donation, cryopreservation of genetic material, surrogacy, posthumous reproduction, gender preselection and reproductive and therapeutic cloning.

**Assisted reproductive technology is widely practised around the world for the treatment of virtually all forms of infertility.**

Medical artificial reproduction is a widely used method in Western society as not just ethically and morally acceptable but beneficial for therapy of infertility. Using **selected donors**, however, the method can be considered as a strategy for positive eugenic improvement, means of squaring a eugenic circle by separating paternity from love relationships and so allowing eugenic improvement without inhibiting individual choice in marriage. In reality, it found very little favour with those who might use it because of a couple’s desire to have their own children has always seemed stronger than any eugenic inspirations.

**Posthumous sperm procurement** involves harvesting gametes from a recently deceased man for cryopreservation and future use in artificial insemination. **In US**: an increase in request and protocols has been documented. International requests and regulations are variable. Posthumous sperm procurement is fraught with **ethical dilemmas**: informed consent, privacy, inheritance, child welfare. Ethical resolution can be obtained only through the collaborative input of all involved parties.

**Catholic Church**
The Catholic Christian tradition and teaching on moral respect due to human life from conception, supported by natural law moral philosophical reasoning. This approach contrasts
with the ethical views of secular philosophers on human embryo research for therapeutic purposes (embryo donation, use of embryonic stem cells, cloning). The challenges for Catholic healthcare institutions is to find ethical ways of using suitable pluripotent stem cells for therapies without creating or destroying human embryos.

**Islam**

Islam encourages family formation and assisted reproduction when indicated within the frame of marriage. Islamic rulings approves the new emerging practices in assisted reproduction, including surrogacy, multifetal pregnancy reduction, cryopreservation, pregnancy in the post-menopausal period, sex selection and embryo implantation following the husband’s death.

The moral status of the embryo in Islam is the following: Organ differentiation and enoulment are believed to occur at 42 days after fertilization at the earliest. As individuation of the embryo does not occur before 14 days from fertilization, research on surplus embryos during this period is allowed.

Similarly, preimplantation genetic diagnosis, gene therapy and non-reproductive cloning for the benefit of humanity are ethically acceptable.

**Iran:**

National and Regional Committees for Medical Research Ethics.

Some laws were approved by the parliament include the Embryo Donation to Infertile Spouses Act (2003) and the Therapeutic Abortion Act (2005)

National guidelines for ethical assessment and supervision of research proposals have also been compiled by the authorities.

**Jewish Law:**

Jewish Law has two divisions: the Written and the Oral traditions. The foundation of the Written Law is the Torah. Attitude of Jewish religion to assisted reproduction:

In 1991, the Israeli Minister of Health and the Minister of Justice ……

**Human cloning**

Regarding the human cloning the Jewish position finds evidence to support the view that there is nothing wrong with the idea of human cloning. A hypothesis is also advanced suggesting that even if a body was cloned, the brain, which is the essence of humanity, would remain unique. Lipschutz (J.Med. Ethics, 1999) suggest that the debate should be changed from „Is cloning wrong?” to „When is cloning wrong?”

**Greek Orthodox position on the ethics of assisted reproduction**

In dealing with reproduction, the Church believes that every human being has a beginning but has no end. This is why conception constitutes an event of unique importance. Irrespective of the way of reproduction (by sexual intercourse or without it) it is conceived, the embryo has both a human beginning and a human perspective and in it, along with cellular multiplication, another process takes place, the beginning and development of its soul.

Modern technologies treat man as a machine. For this reason, all modern techniques of arteficial fertilization have ethical and spiritual parameters that complete the Church to state Her reservations. The Church cannot recommend assisted reproduction as the solution for infertility

**Organ donation**
No religion officially forbids donation or reception of organs or is against transplantation from living or deceased donors. Only some orthodox Jews may have religious objections to "opting in". Transplantation from deceased donors may be discouraged by Native Americans, Roma Gipsies, Confucians and some orthodox rabbis.

Some South Asia Muslim scholars and muftis (jurists) oppose donation from human living and deceased donors because the body is an "amanat" (trusteeship) from God and must not be desecrated following death. Living organ donation is strongly encouraged only among Jesus Christians. Directed organ donation to people of the same religion has been proposed only by some orthodox Jews and some Islamic Ulamas/Muftis. Only some Muslim Ulamas/Muftis and some Asian religions may prefer living donation over cadaveric donation. No religion prefers cadaveric over live donation.

According to a systematic review presumed consent law or practice proved to associate with increased organ donation- increase by 25-30%.

The effect of religiosity, religious norms on intent to donate could not be confirmed.

Islamic position in Iran: Given the consensus of religious and scientific scholars, some laws recently approved by the parliament include the "Deceased and Brain Dead Patients Organ Transplantation Act (2000)

Iran has been named the most active country in the Middle East Society for Organ Transplantation region in providing equitable quick, and intermediary--free access to kidney transplantation for everyone regardless of gender and economic circumstances. The Iranian model can benefit further from improving deceased-donor kidney transplantation as well.

Christian religions

Catholic Church: (defined by the Pope) favors organ donation if the activities respond to strict rules. Due to the sacred of human life, the Catholic Church is against donation from anencephalic donor soon after active euthanasia.

Pope John Paul II said (1991): "There are many questions of an ethical, legal and social nature which need to be more deeply investigated. There are even shameful abuses which call for determined action on the part of medical association and donor societies, and especially of competent legislative bodies" and later on "In effect, the human body is always a personal body, the body of a person. This body cannot be treated as a merely physical or biological entity, nor can its organs and tissues ever be used as item for sale or exchange." In 2000: "Accordingly, any procedure which tends to commercialize human organs or to consider them as items of exchange or trade must be considered morally unacceptable, because use the body as an object is to violate the dignity of the human person" and later on added "The criteria for assigning donated organs should in no way be discriminatory (i.e. based on age, sex, race, religion, social standing etc.)."

To conclude, according to the Catechism of the Catholic Church Compendium signed by Pope Benedict XVI. in 2005: "Organ transplantation is morally acceptable with the consent of the donor and without excessive risks for him/her. For the noble act of organ donation after death, the real death of the donor must be fully ascertained.”

Protestant and Orthodox Churches: the absence of magisterium in these Churches causes sometimes divergent opinions among the members of the clergy. However, there are convergences among the three religions. Theologians who are in favour of organ transplantation promote organ donation but consider it non-mandatory. They do not admit the principle of presumed consent and organ commerce is expressly forbidden.
**Gender selection**

Preconceptional sex selection can be performed based on **medical indication** (such as to prevent X-linked inherited diseases) or on an individual basis to fulfill the wish of a married couple to have a boy or a girl via available medical means.

**In vivo methods** for gender selection such as timing of intercourse, the use of ovulation induction medications and artificial insemination do not appear to affect sex ratio to a clinically significant degree.

**In vitro separation** of X- and Y-bearing spermatozoa by gradient techniques have been reported to significantly alter sex ratios at birth. But these trials were not controlled.

More reliable in vitro methods for preconceptional sex selection: **preimplantation diagnosis (PGD)** or **sperm separation by flow cytometry** combined with AIH (homologous artificial insemination) or IVF (in vitro fertilization).

**Ethical dilemma:**
- A **shift** can be expected from one sex to the other.
- **Jewish law:** the requirement that a man procreates means having a minimum of two children – a boy and a girl – is obligatory. According to both Jewish schools (Beit Shamai and Beit Hillel) in order to fulfill the obligation of procreation at least one son is required. Therefore the application of sex preselection for nonmedical indications may be of practical importance using sperm separation or sex-selection of preembryo by PGD.
- **Christian view (Catholic Church):** gender preselection even for medical indications is forbidden.
- **Islamic legal viewpoint:** fetal sex selection is lawful when it is practiced on an individual basis, to fulfill the wish of a married couple to have a boy or a girl through available medical means.

**FUTURE PERSPECTIVES**

**The human genome and the human control of natural evolution** (Formos J. Med Humanit. 2001 2: 106-12)

Recent advances in research on the Human Genome provoke many critical problems in the global policy regarding the future status of human beings as well as in that of the whole life system on the earth. Consequently, the same advances provoke serious bioethical and philosophical questions.

**Firstly,** how can we comprehend that we are going to have the complete technology to manipulate the system of the human genome and other non-human genomes? Though no science and technology can be complete, we will, author believes, take possession of an almost complete gene technology in the early stage of the next Century. Gene technology will soon fall into the hands of human beings instead of rendering in the province of God.

**Secondly,** which gene technologies will we actually utilize in the early stages of the 21st Century? Most probably we will adopt these technologies to health care to treat some
apparent bodily diseases, for instance, cancer, hemophilia, ADA deficiency, and so forth, and sooner or later we will adapt gene therapy to germ lines, which, in the long run, suggests the possibility of a future „artificial evolution” instead of „natural evolution” of the past.

**Thirdly,** how is the new concept of „artificial evolution” justified ethically? We can believe this kind of manmade evolution is the only way for human beings to survive into the future global environment. There cannot be any serious ethical objections against the idea of artificial evolution.

**Fourthly,** what is the background philosophy for the concept of „artificial evolution”? Several papers discuss the nature of modern European humanism with individual dignity and fundamental human rights which has led the philosophy of modern culture and modern society, and will conclude by suggesting that we should abolish an essential part of modern humanism and newly devise some alternative philosophy to fit the new Millenium.

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