

Biomedical Ethics

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MEDICAL ETHICS

- * Medical ethics is in the group of professional ethics.
 - * About what health professionals should do, avoid in order to behave well within the framework of medical relations.
 - * Try to elucidate the dilemmas arising from the differences between the expectations and values of healthcare providers and areas and their relatives.
- * Within the framework of medical relations, covers both abstract thinking, reasoning activities, compliance with established rules.

4 basic principles in medical ethics

Beneficence (benefiting patients)

Nonmaleficence (doing not harm)

Patient Autonomy (the right to choose - refuse treatment)

Justice (the equitable allocation of scarce health resources)

Secondary Principles

Veracity

Privacy

Confidentiality (of medical information)

Fidelity

Dignity (dignified treatment of patients)

Informed Consent (consent to treatment based on a proper understanding of the facts)

medical ethics

Ethical problems should be examined not only with an Emphasis on Individual Virtues within the Patient-Physician Relationship, but also with regard to the Relationship between Health Policies and the situations that lead to Value Loss or Conflict of Values.

Being unaware of how health services are organized, financed and provided, ignoring the relationship of health policies to problems causes the represented area to be incomplete.

Because Informed Consent, Euthanasia and Organ Transplantation cannot be discussed in a manner compatible with life without considering macro level issues such as Health Policies.

Bioethics

Combination of “Bios” life and “Ethos” moral concepts.

**The subject;
Not only Human Life, which is the main subject of
medical ethics,
but the life of All Organisms that exist in nature.**

**Associated with other disciplines,
areas related to bioethical health occupations.**

Turkish Bioethics Association, invaluable work, 1994

**In education and academic fields provide
great contributions to the development of bioethics.**

Bioethics

Related to Human Body Intervention Studies.
Movements such as
"Transhumanism", "Post-human", "Human"

"Developing"
the Human Body through Electronic,
Chemical and Genetic Interventions

Sharper Senses, Increased Memory,
Strengthening the Muscles

Developing Resistance to
Physical Factors and Diseases

Goals for Physical Functions
which use Less Resources

Typical Ethical Issues that Engineers Encounter

In engineering dealing with;
Colleagues, Clients, Employees, Users, Public

safety

acceptable risk

compliance

Confidentiality

environmental health

data integrity

conflict of interest

honesty / dishonesty

societal impact

fairness

accounting for uncertainty

Biomedical Ethics

Topics of interest
have a history
equivalent to human history } Concept of Biomedical Ethics
isn't a very old phenomenon

Studies in the field of Biomedical Ethics, 1970s

I-Development of new drugs that can control

infectious diseases: Significant progress has been made in medical drugs with the 2nd World War. Such as penicillin, sulfanamide chemicals...

II-Development of new research models for medical

studies: Scientists who carried out their work alone before the 2nd World War began to Work in Groups and the computer industry

Biomedical Ethics

III-Medical Researchers Begin Specializing in Original

Subjects: After World War II,

“Family Physicians” (were called home) ➡ “Specialists”

New Areas of Expertise ➡ New Techniques for patients

Biomedical Searches ➡ New Ethical Dilemmas

Biomedical research have progressed so quickly that classical ethical approaches in this subject are far behind the era.

Main topics of the Biomedical Ethics Case

I-Physician obligations and patient rights

Physicians usually carry a paternal authority and power. They can Store Information From Patients and treat them Without the Consent of Patients.

Does the physician have the right to violate his personality rights, even for the health of his patient?

Main topics of the Biomedical Ethics Case

II-Use of human subjects in biomedical experiments

“Treatment and Experiment”.

Experiment/Research Cases are science-oriented activities.

Research on human subjects for therapeutic purposes, experimental practices should comply with the conditions determined by the Ethical Committees.

III- Is euthanasia supporting suicide?

Rapid Developments ➡ Lengthening Human Life

But how long this life should last, or is breathing enough for that person to be proof that it is alive?

They don't want the illness that has no cure to cause more suffering to themselves or their relatives.

This thought brings up the concept of Euthanasia.

Main topics of the Biomedical Ethics Case

IV-Abortion

Abortion is legal in many countries, but ethical discussions about abortion are not ended.

- * Is the fetus just a tissue?
- * In what position is the fetus deemed to have human rights?
- * Do these rights become natural for him as he resembles a person more, that is, when he is in the womb increases?
- * Do they have no prenatal rights and do not fall within the scope of moral values to be included in the ethical debate?

Main topics of the Biomedical Ethics Case

V- Genetics and Pregnancy

The determination of the health problems that babies in the uterus will have in the future brings along various ethical concerns;

- Some families can request an abortion based on the sex of the child.
- The selective abortion, of babies at risk of having a genetic disorder is discussed.
- If we ask the question backwards, is it ethically wrong to bring a baby at risk of developing genetic diseases?
- Could it be forced into abortion by families, government or other social institutions depending on the biological characteristics of babies in the future?
- Is it possible that this scenario, which is seen as an open human rights violation today, will be considered normal in the future?

Main topics of the Biomedical Ethics Case

Another issue that continues to confuse in the field of genetics is artificial reproduction, reproductive technologies.

Reproductive technologies include replacing one or more steps of the natural reproductive pattern with human intervention by artificial methods.

There are three main methods :

Artificial insemination, External fertilization, Cloning...

The fact that these methods are completely disconnected from the natural breeding process is sufficient for objections.

The main objection is that the genetically specific organisms will decrease and the genetic diversity will disappear as a result of cloning.

Main topics of the Biomedical Ethics Case

VI- AIDS

Many AIDS patients want to hide their illness from their spouses. That's why AIDS disease spreads faster.

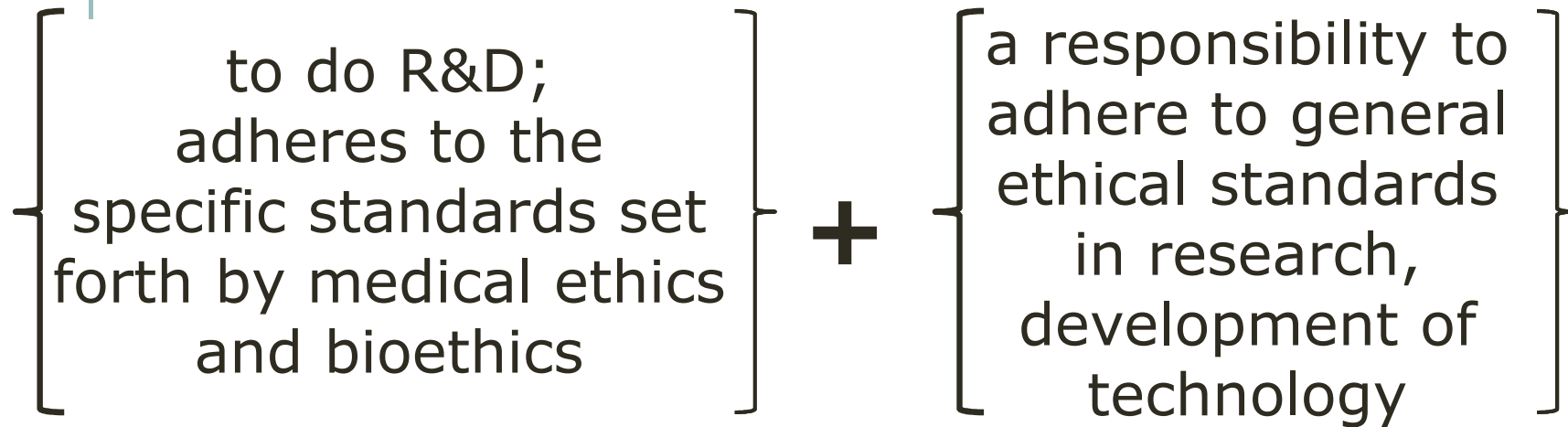
-The main ethical concern in this regard; For AIDS patients, it is to follow the "privacy of private life" rule.

-Another ethical problem is mandatory AIDS tests applied to individuals at high risk of developing AIDS. Forcing the individual to medical tests is considered a violation of personal rights in democratic societies.

However, the absence of these tests also makes it difficult to control the disease.

Biomedical Engineering Ethics

Combine those of Engineers and Medical Professionals



Biomedical engineers are indirect practitioners!
since the technologies and techniques
we develop co-determine medical practice.

Biomedical Engineering Ethics

1- in the R&D practice itself

Within R&D there are ethical issues regarding human and animal experimentation and the use of biomaterials, as well as general issues of R&D ethics like truthfulness and the avoidance of conflicts of interests.

Next to such issues inherent to their own practice,

2- regarding the implications of developed techniques and devices for medical practice

Have a responsibility to anticipate on the consequences of their designs for medical practice and to ensure that technologies and techniques are designed in a manner consistent with and supportive of ethical principles for medical practice.

BIOMEDICAL ENGINEERING SOCIETY CODE OF ETHICS

- * Biomedical engineering is a learned profession that combines expertise and responsibilities in engineering, science, technology, medicine.
- * Since public health and welfare are paramount considerations in each of these areas, biomedical engineers must uphold those principles of ethical conduct embodied in this Code in professional practice, research, patient care, training.
- * This Code reflects voluntary standards of professional and personal practice recommended for biomedical engineers.

Biomedical Engineering Professional Obligations

Biomedical engineers in the fulfillment of their professional engineering duties shall:

- Use their knowledge, skills, and abilities to enhance the safety, health, and welfare of the public.
- Strive by action, example, influence to increase the competence, prestige, honor of the biomedical engineering profession.

Biomedical Engineering HEALTH CARE Obligations

Biomedical engineers involved in health care activities shall:

- Regard responsibility toward and rights of patients, including those of confidentiality and privacy, as their primary concern.
- Consider the larger consequences of their work in regard to cost, availability, and delivery of health care.

Biomedical Engineering RESEARCH Obligations

Biomedical engineers involved in research shall:

- Comply fully with legal, ethical, institutional, governmental, and other applicable research guidelines, respecting the rights of and exercising the responsibilities to colleagues, human and animal subjects, and the scientific and general public.
- Publish and/or present properly credited results of research accurately and clearly.

Biomedical Engineering Training Obligations

Biomedical engineers entrusted with the responsibilities of training others shall:

- Honor the responsibility not only to train biomedical engineering students in proper professional conduct in performing research and publishing results, but also to model such conduct before them.
- Keep training methods and content free from inappropriate influence from special interests.