

**Faculty of medical laboratory science
public health MLS-PUBH-322
sem.6**

Research Ethics

"Do unto others as you would have
them do unto you"

Research Ethics: Definition

- Research ethics involves the application of fundamental ethical principles to a variety of topics involving research, including scientific research.

Why Research Ethics ?

There are several reasons:

- First, To maintain respect for persons
- Second, To protect participants who participate in research
- Third, To advocate for justice, which means to fairly distribute the burdens and benefits of research
- Fourth, To ensure that research has scientific merit, This means, specifically that research has a valid purpose that will enhance the health of society

Research Ethics: History

- 1930s -1960s → Tuskegee Study
- 1946 → Nuremberg Doctors Trial
- 1947 → Nuremberg Code
- 1948 → Universal Declaration of Rights
- 1964 → Declaration of Helsinki

Research Ethics: Tuskegee Study



Research Ethics: Codes & Key Issues

Honesty:

- Strive for honesty in all scientific communications.
- Honestly report data, results, methods and procedures, and publication status.
- Do not fabricate, falsify, or misrepresent data.

Objectivity:

- Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research.
- Avoid or minimize bias or self-deception.
- Disclose personal or financial interests that may affect research.

Research Ethics: Codes and Policies

Integrity:

- Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.

Carefulness:

- Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers.
- Keep good records of research activities, such as data collection, research design, and correspondence with agencies or journals.

Research Ethics: Codes and Policies

Openness:

- Share data, results, ideas, tools, resources. Be open to criticism and new ideas.
- **Respect for Intellectual Property:**
- Honor patents, copyrights, and other forms of intellectual property.
- Do not use unpublished data, methods, or results without permission.

Confidentiality:

- Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.

Research Ethics: Codes and Policies

Responsible Publication:

- Avoid wasteful and duplicative publication.

Responsible Mentoring:

- Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.

Respect for colleagues:

- Respect your colleagues and treat them fairly.

Social Responsibility:

- Strive to promote social good and prevent or mitigate social harms through research, public education, and advocacy.

Research Ethics: Codes and Policies

Non-Discrimination:

- Avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.

Competence:

- Maintain and improve your own professional competence and expertise through lifelong education and learning.

Legality:

- Know and obey relevant laws and institutional and governmental policies.

Research Ethics: Codes and Policies

Human Subjects Protection:

- When conducting research on human subjects, minimize harms and risks and maximize benefits.
- Respect human dignity, privacy, and autonomy.
- Take special precautions with vulnerable populations.
- Strive to distribute the benefits and burdens of research fairly.

Animal Care:

- Show proper respect and care for animals when using them in research.
- Do not conduct unnecessary or poorly designed animal experiments.

Research Ethics: Scientific Misconduct

- ***Fabrication:*** is making up results and recording or reporting them.
- ***Falsification:*** is manipulating research materials, equipment, or processes or changing or omitting data or results such that the research is not accurately represented in the research record.

Research Ethics: Scientific Misconduct

- *Plagiarism*: is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- One form is the appropriation of the ideas and results of others, and publishing as to make it appear the author had performed all the work under which the data was obtained.
- Arguably, this is the most common type of scientific misconduct.

