Chapter Seven

Ethics in Research

What is ethics in research?

- The word ethics comes from a Greek word ‘etho’ which means character.
- Ethics can be defined as “**a systematic study of value concepts**, ‘good’, ‘bad’, ‘right’, ‘wrong’ and the general principles that justify applying these concepts.”
- Research ethics deals **primarily** with the interaction between researchers and the people they study with additional issues, such as collaborative relationship among researchers, mentoring relationship, intellectual property, fabrication of data and plagiarism.

- Research ethics involves the application of fundamental ethical principles to a variety of topics involving scientific research.
- It is a framework applying broad ethical principles to the responsible conduct of research and to the use of any outcomes resulting from the research.
- It is a broad umbrella covering the responsible conduct of research and all of its content (consideration of intellectual property and fabrication, falsification, and suppression of data, to name just two subjects) is relevant to field research.

- Many different disciplines, institutions, and professions have norms for behavior that suit their particular aims and goals. These norms also help members of the discipline to coordinate their actions or activities and to establish the public's trust of the discipline. For instance, ethical norms govern conduct in medicine, law, engineering, and business. Ethical norms also serve the aims or goals of research and apply to people who conduct scientific research or other scholarly or creative activities, and there is a specialized discipline, research ethics, which studies these norms.
- In short, research ethics is a rule governing the activities of the researchers to make suit the finding of the research for public interest.

- Generally, ethics in research can be categorized in to three as follows:
  - Scientific Misconduct
    - Fraud/ Data fabrication
  - Plagiarism
    - Stealing of ideas or writing
    - Unethical but legal (Copyright Example)
  - Power
    - The abuse of power and trust
    - The responsibility to guide, protect and oversee the interests of those being studied.
    - Employees, research assistants, and committees.

- **In conducting research:**
  - Never cause unnecessary or irreversible harm to subjects; secure prior voluntary consent when possible.
  - Never unnecessarily humiliate, degrade, or release harmful information about specific individuals that was collected for research purposes.

General Guidelines/Principals or codes of ethics in Research

1. 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.
  - Do not deceive or mislead colleagues, granting agencies, or the public.

2. Openness

- Share data, results, ideas, tools, resources etc.
- Be open to criticisms, opinions and new ideas.

3. **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 where objectivity is expected or required.
  - Avoid or minimize bias or self-deception.
  - Disclose personal or financial interests that may affect research.

4. **Integrity** - Truth

- Keep your promises and agreements.
- Act with sincerity.
- Strive for consistency of thought and action.

5. **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.

6. **Responsible Publication**

- Publish in order to advance research and scholarship, not to advance just your own career or line of business.
  - Avoid wasteful and duplicative publication.

7. Respect for Intellectual Property

- Honor patents, copyrights, and other forms of intellectual property.
- Do not use unpublished data, methods, or results without permission.
- Give credit where credit is due.
- Give proper acknowledgement or credit for all contributions to research – Never ***plagiarize***.

8. **Confidentiality**

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

9. Responsible Mentoring

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

10. Respect for colleagues

- Respect your colleagues and treat them fairly.

11. Social Responsibility

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

12. Non-Discrimination

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

13. Competence – capability/skill

- Maintain and improve your own professional competence and expertise through lifelong education and learning.
- Take steps to promote competence in science as a whole.

14. Legality

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

15. Animal Care

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

16. 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.

The Importance of Ethics in Research

- **Promote the aims of research,** such as knowledge, truth, and avoidance of error. For example, prohibitions against fabricating, falsifying, or misrepresenting research data promote the truth and avoid error.
- Promote the values that are essential to **collaborative work**, such as trust, accountability, mutual respect, and fairness. Because, research often involves a great deal of cooperation and coordination among many different people in different disciplines and institutions.

- Help to ensure that researchers can be held **accountable** to the public.
- Help to build **public support** for research. People are more likely to fund research project if they can trust the quality and integrity of research.
- Finally, many of the norms (ethics) of research promote a variety of other important moral and social values, such as social responsibility, human rights, animal welfare, compliance with the law, and health and safety.

- Ethical lapse in research can significantly harm human and animal subjects, students, and the public. For example, a researcher who fabricates data in a clinical trial may harm or even kill patients and a researcher who fails to abide by regulations and guidelines relating to radiation or biological safety may jeopardize his health and safety or the health and safety of staff and students.

THE END

THANK YOU!!!