

# Ethics in Research

**S.K.Kataria**

Professor in Public Administration  
Mohanlal Sukhadia University, Udaipur  
*skkataria64@rediffmail.com*

# Meaning of Ethics(नीतिशास्त्र)

Literally, the ethics means-

- ▶ the study of what is right and wrong in human behavior.

मानवीय व्यवहार में उचित-अनुचित की मीमांसा.

- ▶ beliefs about what is morally correct or acceptable.

उचित-अनुचित का विचार.

**D.H.Lawrence** says - “Ethics and equity and the principles of justice do not change with the calendar”.

According to **Potter Stewart** - “Ethics is knowing the difference between what you have a right to do and what is right to do.”

# Ethical Principles in Research

- ▶ Ethics in research are like the 'code of conduct' to guide and control the researchers and organizations to enhance the integrity of this scientific field / task/ project /community.
- ▶ It is important to adhere to ethical principles in order to protect the dignity, rights and welfare of research participants.
- ▶ **NIEHS**- The National Institute of Environmental Health Sciences, Rockville, Maryland, USA has identified some basic Principles applicable in any research work or project. These are ---( next slides )

# Honesty ईमानदारी

- ▶ 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 colleagues, research sponsors, or the public.
- ▶ **James Altucher** says- “Honesty is the fastest way to prevent a mistake from turning into a failure”.
- ▶ Honesty is more than not lying. It is truth telling, truth speaking, truth living, and truth loving. --**James E. Faust**.

# Objectivity निष्पक्षता

- ▶ As per **Nicholas Rescher** - “ In philosophy, objectivity is the concept of truth independent from individual subjectivity (bias caused by one's perception, emotions, or imagination). A proposition is considered to have objective truth when its truth conditions are met without bias caused by a sentient subject. Scientific objectivity refers to the ability to judge without partiality or external influence. Objectivity in the moral framework calls for moral codes to be assessed based on the well-being of the people in the society that follow it. Moral objectivity also calls for moral codes to be compared to one another through a set of universal facts and not through Subjectivity.
- ▶ 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.

# Integrity सच्चरित्रता

- ▶ Integrity is the practice of being honest and showing a consistent and uncompromising adherence to strong moral and ethical principles and values.
- ▶ Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.
- ▶ **Gerald Cushing MacCallum** says- “In ethics when discussing behavior and morality, an individual is said to possess the virtue of integrity if the individual's actions are based upon an internally consistent framework of principles”.

# Carefulness सावधानी

- ▶ Carefulness is a characteristic of being cautious, thoughtful, or prudent. When you write "FRAGILE" on a package you're mailing, you're hoping it will be handled with carefulness at the post office. In many cases, you can substitute this noun with the shorter care.

( [www.vocabulary.com](http://www.vocabulary.com) )

- ▶ 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.

# Openness and Transparency खुलापन और पारदर्शिता

- ▶ Openness and transparency are key ingredients to build accountability and trust, which are necessary for the functioning of democracies, societies, organizations and research agencies as well as researcher alone.
- ▶ Share data, results, ideas, tools, resources. Be open to criticism and new ideas.
- ▶ Disclose methods, materials, assumptions, analyses, and other information needed to evaluate your research.



# Accountability जवाबदेयता

- ▶ Accountability is a legal responsibility .
- ▶ **Clarence A. Dykstra** says- “Accountability, in terms of ethics and governance, is equated with answerability, blameworthiness, liability, and the expectation of account-giving”.
- ▶ Take responsibility for your part in research and be prepared to give an account (i.e. an explanation or justification) of what you did on a research project and why.

# Intellectual Property बौद्धिक सम्पदा

- ▶ Intellectual property (IP) is a category of property that includes intangible creations of the human intellect.
- ▶ Honor patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give proper acknowledgement or credit for all contributions to research. Never plagiarize.
- ▶ In India , literary work under ‘Copyright Act, 1957’; trademarks under ‘Trade and Merchandise Marks Act 1958’; patents under ‘Patents Act, 1970’; and designs under ‘Designs Act, 1911’ etc. are protected with some legal safeguards for inventors or creators.

# Confidentiality गोपनीयता

- ▶ In general term confidentiality involves a set of rules or a promise usually executed through confidentiality agreements that limits access or places restrictions on certain types of information, however in daily life an agreement is not required. It usually depends upon the 'duty-sense ' of a person in certain conditions and circumstances.
- ▶ Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.

# Responsible Publication उत्तरदायी प्रकाशन

- ▶ Being responsible means being dependable, keeping promises and honoring our commitments. It is accepting the consequences for what we say/execute/write/ and do. It also means developing our potential. People who are responsible don't make excuses for their actions or blame others when things go wrong.
- ▶ Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.

# Responsible Mentoring जिम्मेदाराना निर्देशन

- ▶ A mentor ( here Research Supervisor/ Director) is an experienced person who advises and helps somebody with less experience over a period of time.
- ▶ Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.
- ▶ The Research Mentor must take an active role by working closely with the trainee / student/ researcher to define clearly not only an appropriate research project, but also a strong career development plan, providing guidance, training and support, and serving as a role model for the trainee. The mentor must be genuinely interested in the goals of the trainee's program.

# Respect for Colleagues साथियों का आदर

- ▶ Respect your colleagues and treat them fairly.
- ▶ **Confucius** says- "Without feelings of respect, what is there to distinguish men from beasts?"
- ▶ Ideas for demonstrating respect in the workplace include- Treat people with courtesy, politeness, and kindness. Encourage coworkers to express opinions and ideas. Listen to what others have to say before expressing your viewpoint. ... Use peoples' ideas to change or improve the system and build a better society.....

# Social Responsibility सामाजिक दायित्व

- ▶ Strive to promote social good and prevent or mitigate social harms through research, public education, and advocacy.
- ▶ Social responsibility is an ethical theory in which individuals are accountable for fulfilling their civic duty, and the actions of an individual must benefit the whole of society. In this way, there must be a balance between economic growth and the welfare of society and the environment.
- ▶ Like Corporate Social Responsibility ( CSR ) there is University Social Responsibility ( USR ) and other Institutional Social Responsibility ( ISR ) too.

# Non-Discrimination भेदभावरहित

- ▶ Avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors not related to scientific competence and integrity.
- ▶ According to WHO - The principle of non-discrimination seeks “to guarantee that human rights are exercised without discrimination of any kind based on race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status such as disability, age, marital and family status, sexual orientation and gender identity, health status, place of residence, economic and social situation”. And it is applicable everywhere.



# Competence योग्यता

- ▶ Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.
- ▶ For improving competence -
  - Consider every circumstance an opportunity.
  - Join a mastermind group.
  - Find a mentor.
  - Use time wisely.
  - Take advantage of technology.
  - Follow discipline.

# Legality वैधानिकता

- ▶ Know and obey relevant laws and institutional and governmental policies.
- ▶ Plato says- “Justice in the life and conduct of the State is possible only as first it resides in the hearts and souls of the citizens.”
- ▶ Rule of law provides for availability of rules, laws and legal mechanism to implement them. Principle of legality checks for availability and quality of the laws. Legality checks for if certain behaviour is according to law or not. concept of Legitimacy of law looks for fairness or acceptability of fairness of process of implementation of law. Quality of being legal and observance to the law may pertain to lawfulness, i.e. being consistent to the law or it may get discussed in principle of legality or may be discussed as legal legitimacy.

# Animal Care जीवों की रक्षा

- ▶ Show proper respect and care for animals when using them in research. Do not conduct unnecessary or poorly designed animal experiments. Enago Academy, New York believes that -
- ▶ First, animal experiments must be replaced wherever possible by other methods such as mathematical modeling, or an in vitro biological system.
- ▶ Second, there must be a reduction in the number of animals used. Only the number required to obtain reliable data must be used in an experiment. A thorough literature search must be done beforehand to prevent duplicating experiments.
- ▶ Third, the study must be refined to minimize its overall impact on the animals used.

# Human Subjects protection मानवीय गरिमा का संरक्षण

- ▶ 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; and strive to distribute the benefits and burdens of research fairly.
- ▶ A human rights approach to bioethics, and particularly to human subject research, can bring about a defined system and universally accepted set of rules in a field where socio-cultural and religious diversity come into play and every aspect of human dignity and vulnerability must be taken care of.

# Common Ethical Errors in Research

## ( Identified by NIEHS)

- ▶ Publishing the same paper in two different journals without telling the editors.
- ▶ Submitting the same paper to different journals without telling the editors.
- ▶ Not informing a collaborator of your intent to file a patent in order to make sure that you are the sole inventor.
- ▶ Including a colleague as an author on a paper in return for a favor even though the colleague did not make a serious contribution to the paper.

## Contd.--

- ▶ Discussing with your colleagues confidential data from a paper that you are reviewing for a journal.
- ▶ Using data, ideas, or methods you learn about while reviewing a grant or a papers without permission.
- ▶ Trimming outliers from a data set without discussing your reasons in paper.
- ▶ Using an inappropriate statistical technique in order to enhance the significance of your research.
- ▶ Bypassing the peer review process and announcing your results through a press conference without giving peers adequate information to review your work.

## Contd.--

- ▶ Conducting a review of the literature that fails to acknowledge the contributions of other people in the field or relevant prior work.
- ▶ Stretching the truth on a grant application in order to convince reviewers that your project will make a significant contribution to the field.
- ▶ Stretching the truth on a job application or curriculum vitae.
- ▶ Giving the same research project to two graduate students in order to see who can do it the fastest.
- ▶ Overworking, neglecting, or exploiting graduate or post-doctoral students.

## Contd.-

- ▶ Failing to keep good research records.
- ▶ Failing to maintain research data for a reasonable period of time.
- ▶ Making derogatory comments and personal attacks in your review of author's submission.
- ▶ Promising a student a better grade for sexual favors.
- ▶ Using a racist epithet in the laboratory.
- ▶ Making significant deviations from the research protocol approved by your institution's Animal Care and Use Committee or Institutional Review Board for Human Subjects Research without telling the committee or the board.



## Contd.-

- ▶ Not reporting an adverse event in a human research experiment.
- ▶ Wasting animals in research.
- ▶ Exposing students and staff to biological risks in violation of your institution's biosafety rules.
- ▶ Sabotaging someone's work.
- ▶ Stealing supplies, books, or data.
- ▶ Rigging ( *heraferi* ) an experiment so you know how it will turn out.
- ▶ Making unauthorized copies of data, papers, or computer program.

# Contd.

- ▶ Owning -over huge amount in stock or as FD in a company or bank and not disclosing earned financial interest to the agency who sponsors your research .
- ▶ Deliberately overestimating the clinical significance of a new drug/ equipment/ tool/ theory in order to obtain economic benefits.

## ▶ Thanks

- ▶ *Courtesy- NIEHS/WHO/ Vocabulary.com/ Enago Academy and all other sources whose reference is made and material is used in this presentation.*

# Request for Copying : An Example Permission Sought ( Filling on Portal )

► From: Contact NIEHS (NIH/NIEHS) <contactniehs@niehs.nih.gov>

Sent: Thursday, April 15, 2021 11:50 PM

To: Contact NIEHS (NIH/NIEHS) <contactniehs@niehs.nih.gov>

Subject: Contact Us General Information

Email: skkataria64@rediffmail.com

Organization: Mohanlal Sukhadia University, Udaipur, The Republic of India

Question or comments: Sir, I have just gone through your website while searching ethical principles for research. I find your page and information very useful and holistic. Can I use your points and material while teaching/explaining the topic to my students. Definitely I will show your name on the presentation. Regards

# Permission Received

► From:

"Contact NIEHS (NIH/NIEHS)" <contactniehs@niehs.nih.gov> | Add to Address book | This is spam

To: "skkataria64@rediffmail.com" <skkataria64@rediffmail.com>

Subject: Re: Contact Us General Information

Date: Mon, 19 Apr 2021 20:23:53 IST

Thank you for contacting NIEHS. All information on our public website is considered public domain, so you are free to use those materials in your lectures. We do, however, ask that you cite NIEHS as the source, and that you do not sell it for profit.

Kind regards,

Ian Thomas, NIEHS Communications

*Great people have great values and great ethics.*

*-Jeffrey Gitomer*

**Ethics ...**

has been well called  
“the religion of science.”

Edwin Grant Conklin

