

# **REVIEW OF RESEARCH**

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# **ETHICS IN RESEARCH**

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#### **ABSTRACT**:

Research in general or formal sense means collecting information such as observing, asking questions, making experiments etc about something to arrive at evidence based conclusions on the research topic undertaken. Research is the attainment of new knowledge. This knowledge represents the current truth. Every research has its own premises and perspectives. Research emerges as a result of curiosity and aims at discovering truth and resolving contradictions in the areas of study. Every human being has the rights to self-determination, privacy, anonymity and confidentiality. Ethical norms are learnt at home, school, and in other social settings. Sense of



right or wrong can be achieved during childhood, but the moral development occurs in the course of life through different stages of growth as human beings mature. The most important ethical principles for a good research are: intellectual honesty, objectivity, integrity, carefulness, openness, respect for intellectual property, confidentiality, responsible publication, responsible mentoring, respect for colleagues, social responsibility, non-discrimination, competence, legality, human subjects protection and so on.

Human rights are claims and demands that have been justified in the eyes of an individual or by the consensus of a group of individuals. Promotion of the Rights of Participants, Informed Consent, Privacy, Anonymity and Confidentiality, Precaution and Risk Minimization, Beneficence, Justice, Non-exploitation, Transparency, Avoid Bias, Use Appropriate Research Methodology, Ethics committees must review and approve all research proposals involving human participants. Research ethics committees should be independent, multidisciplinary multi-spectral and pluralistic.

Ethics committees, Research ethics areas of focus, Ethical concerns in qualitative research, ethical concerns in quantitative research related to the stage of research, importance of ethics in research, researchers role in ethics in research, internet ethics, role of peer reviewers, journal editors and researchers, type of unethical publications.

Ethics is the branch of philosophy that deals with morals. The project should weigh for the potential benefits and risks before undertaking. If the risks outweigh the benefits, the study should be redesigned or abandoned. Adequate care and measures should be instituted by the researcher to protect the human rights.

**KEYWORDS**: observing, asking questions, unethical publications.

#### **INTRODUCTION:**

Research is the attainment of new knowledge. This knowledge represents the current truth. Therefore, truthfulness is one of the pillars of conduct on research. Research in a general or formal means collecting information such as observing, asking questions, making experiments etc about something to reach decision in certain matter.

Educational Research is the activity directed towards development of a science of behavior in educational institutions the ultimate aim of seen a science is to provide knowledge that will permit the education to achieve the goals by the most effective methods- Travers.

According Webster dictionary, research is an endeavor to discover answers to problems (i.e., intellectual and practical) through to application of scientific methods to the knowable universe.

Science in general and research in particular are strongly intertwined with social well-being. Health research plays a pivotal role in addressing inequities in health and human development, but to achieve these objectives the research must be based on sound scientific and ethical principles.

The golden rule to maintain divine love is "Do unto others as you would have them do unto you". It also denotes the Hippocratic oath "first of all, do no harm". This is the most common way of understanding ethics, which distinguish between the acceptable and unacceptable behavior. Many different discipline, institutions, and professions have norms for behavior that suit their particular aims and goals. These norms also help members of the discipline to coordinate the actions and activities and it also helps to establish the public trust of the discipline. Ethical norms are learnt at home, school, and in other social settings. Sense of right or wrong can be achieved during childhood, but the moral development occurs in the course of life through different stages of growth as human beings mature.

Every research has its own premises and perspectives. Research arises as a result of curiosity and aims at discovering truth and resolving contradictions in the area of study. Research is undertaken to discover answers to questions by applying the scientific method. With the discovery of new ideas and facts, old conclusions and theories are re-examined and may establish new empirical generalizations, falsifying the older ones. A good piece of research work gives rise to some problems requiring further research. Re-search is not an end to a problem and rather the beginning the sense that a new re-search may be able to raise a new question.

#### **Terminologies**

**Ethics**: It is a branch of philosophy that deals with morals. It is the philosophy of what is right or wrong. **Code**: A set of laws or rules. Ethics becomes and action concept of what ought to be done. **Morals**: Morals means standards of human behavior.

Ethics means principles for guiding decision making and reconciling conflicting values. People may disagree on 'ethics' because it is based on people's personal value systems. What one person considers to be good or right – may be considered bad or wrong be another person.

## What is Human Research?

- 1. Research conducted with people
- 2. Research conducted about people
- 3. Research dealing in their data or tissue.

Ethics is the study of proper action. Research ethics concerns the responsibility of researchers to be honest and respectful to all individuals who may be affected by their research studies or their reports of the studies' results. One must accept the responsibility to behave ethically toward those who will be affected by research findings.

According to Oxford Dictionary, "Ethics are moral principles that govern a person's behavior or the conducting of an activity."

Research ethics is specifically interested in the analysis of ethics issues that are raised when people (or even animals) are involved as participants in research.

## What Ethics is?

Ethics is all about commitment to positive values, a communal activity applying rational principles and universal standards to social life, about real power sharing problem solving activity and an educational process.

#### What Ethics is not About?

Negative code of conduct, moral prohibitions, disciplinary rules, a private matter, nor about subjective feeling, personal attitudes and choices.

Social research in general and educational research in particular have generally followed this lead. This does not imply that, social and educational researchers have remained on the sidelines, simply applying the precepts of medical ethics. On the contrary, for at least some theorists an adequate approach to the ethics of social and educational research requires significantly modifying the vocabularies and frameworks that have come down to them through the ethics of medical research.

Most societies also have legal rules that govern behaviour, but ethical norms tend to be broader and more informal than laws. Although most societies use laws to enforce widely accepted moral standards and ethical and legal rules use similar concepts, ethics and law are not the same. An action may be legal but unethical or illegal but ethical. The researcher can also use ethical concepts and principles to criticize, evaluate, propose, or interpret laws. Indeed, in the last century, many social reformers have urged citizens to disobey laws they regarded as immoral or unjust laws. Peaceful civil disobedience is an ethical way of protesting laws or expressing political viewpoints.

In other words, 'ethics' focuses on the disciplines that study standards of conduct, such as philosophy, theology, law, psychology, or sociology. For example, a "medical ethicist" is someone who studies ethical standards in medicine. One may also define ethics as a method, procedure, or perspective for deciding how to act and for analyzing complex problems and issues. For instance, in considering a complex issue like global warming, one may take an economic, ecological, political, or ethical perspective on the problem. While an economist might examine the cost and benefits of various policies related to global warming, an environmental ethicist could examine the ethical values and principles at stakeholders.

#### **The Area Code of Research Ethics**

Professional ethical codes have existed at least since the Hippocratic Oath of ancient Greece. In general, such codes express the creed of a given group of professionals and, unlike governmental regulations, do not have the force of law. Nowadays, professional groups typically include a great diversity of individuals with varying viewpoints on controversial issues. In order to win broad acceptance, professional ethical codes must be exceedingly general. Thus, they provide little specific guidance regarding what to do in concrete cases of ethical perplexity. Nonetheless, professional ethical codes have considerable value, since they highlight the special duties and dangers associated with different kinds of professional activities.

## **Need for Ethics in Research**

Most people learn ethical norms at home, at school, in church, or in other social settings as discussed hereinabove. Although most people acquire their sense of right and wrong during childhood, moral development occurs throughout life and human beings pass through different stages of growth as they mature. Ethical norms are so ubiquitous that one might be tempted to regard them as simple commonsense. On the other hand, if morality were nothing more than commonsense, then why are there so many ethical disputes and issues in our society?.

Every human being has the rights to self-determination, privacy, anonymity and confidentiality, fair treatment, protection from discomfort and harm. Nursing researches/ other inter disciplinary research involve mostly the human subjects, it is very essential to safeguard the rights of the participants. It is the responsibility of the researcher to protect the rights of human subjects.

The most important ethical principles for a good research are:

**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 colleagues, granting agencies, or the public.

**Objectivity**: Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personal 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**: 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 the work and the work of co-researchers. Keep good records of research activities, such as data collection, research Design, and correspondence with agencies or journals.

**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. Give credit where credit is due. Give proper acknowledgement or credit for all contributions to research. Never plagiarize.

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

**Responsible Publication**: Publish in order to advanced research and scholarship, not to advance in one's career. 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 colleagues and treat them fairly.

**Social Responsibility**: Strive to promote social good and prevent or mitigate social harms trough research, public education, and advocacy.

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

**Competence**: Maintain and improve professional competence and expertise through lifelong education and learning; take steps to promote competence in Science as a whole.

Legality: Know and obey relevant laws and institutional and governmental policies.

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

**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 vulnerable populations; and strive to distribute the benefits and burdens of research fairly.

## Why is Research Ethics Important?

- 1. It is reflection of respect for those who 'take part' in research.
- 2. It ensures no unreasonable, unsafe or thoughtless demands are made by researchers.
- 3. It ensures sufficient knowledge is shared by all concerned.
- 4. It imposes a common standard in all the above respects.
- 5. It has become the norm as an expectation for research activity.

Ethics and quality are inextricably linked. Research is a purposeful activity geared directly or indirectly to the public/society's welfare. The necessary involvement of other individuals carries an obligation for the researcher to think about the worthiness of the project and to ensure both that it is worthwhile and that, as far as possible, the purpose is achieved.

## **Approached of Ethics in a Research**

- 1. Deontology Universal Moral Code/duty is the basis of all action.
- 2. Ethical Skepticism Individual Conscience
- 3. Utilitarianism Costs Vs. Benefits / central concern is the general welfare rather than individual's interest.
- 4. Teleology- actions can only judged on the basis of consequences they produce.

# **Stakeholders in a Research**

- 1. Participants
- 2. Researcher
- 3. Funding Agencies.

## **Ethical Issues Concerning Research Participants. Collecting information**

The researcher needs to make the participants clear that the undertaken research is beneficial for society and only relevant information would be collected.

## **Seeking Consent**

Informed consent impels the subjects are made adequately aware of the type of information researcher want, why the information is being sought, what purpose it will be put to, how they are expected to participate in the stud- and how it will directly or indirectly affect them.

#### **Providing Incentives**

It is unethical to provide a sort of inducement or incentives to the respondents for their participants. Participants should not because of privileges, but because of realizing the importance of the study.

#### **Seeking Sensitive Information**

Some information may seem sensitive and confidential to the participants such as questions on personal or etc. It is not unethical to ask such questions as long as the research requires that information. The researcher should ask sensitive questions frankly, clearly with a non-judgmental approach and give them sufficient time to decide whether they want to participate or not.

## The following phenomenon should be avoided while gathering data from participants

- (1) Hazardous educational or an-experiment,
- (2) Causing discomfort,
- (3) Causing anxiety,
- (4) Causing harassment,
- (5) Invasion of privacy,

- (6) Demeaning procedure and
- (7) Maintaining Confidentiality.

Information should only be used in research purposes. Personal information of the participants or information that can harm individuals should remain confidential. In such cases, the anonymity of participants should be ensured by the researcher.

# **Ethical Issues for Researchers**

- 1. Researchers have to avoid bias. It means they should not hide or misinterpret an- outcome to conclude certain or pre-defined result.
- 2. Researchers have to use the data in fruitful researches. They should not overlook any valuable data.
- 3. Researchers should not use inappropriate methodology such as biased sampling, using invalid instrument, drawing wrong conclusion etc.

## **Ethical issues for Funding Agencies**

The funding body should not select the methodology prohibit the publication or impose restriction on the research.

#### Potential Benefits and Risks of Research to Participants Benefits

- Access to an intervention or treatment
- Knowledge gain for the participants
- Personal satisfaction
- Monetary gains

#### **Risks**

- Physical harm, discomfort, fatigue or boredom.
- Psychological or emotional discomfort.
- Social problems (loss of status of personal relationship).
- Loss of privacy
- Monetary cost.
- Loss of time and comfort.

All the researches may involve some kind of risks. Researcher must take adequate precautionary measures to reduce risks and maximize benefits. The researcher must weigh the risks and benefits of the study before doing it. If the risks outweigh the benefits then the research study must be redesigned or abandoned.

#### **Human Rights**

According to Nancy Burns, human rights are claims and demands that have been justified in the eyes of an individual or by the consensus of a group of individuals.

Human rights refer to the following five rights outlined in the ANA guidelines. They are:

- Right to self-determination.
- Right to privacy and dignity.
- Right to anonymity and confidentiality.
- Right to fair treatment.
- Right to protection from discomfort and harm.

**Right to self-determination**: It is based on the ethical principle of respect for human beings and indicates that humans have the right to live the way they need without external controls.

**Right to privacy and dignity**: Privacy is the freedom and individual has to determine the time, extent and general circumstances under which private information will be shared or withheld from others.

**Right to anonymity and confidentiality**: The research subject has the right to anonymity and the right to assume that the data collected will be kept confidential. Confidentiality is the researcher's management of information shared by a subject. The researcher must refrain from sharing that information without the authorization of the subject.

**Right to fair treatment**: It is based on the ethical principle of justice. Individuals should be treated fairly and should receive what they are due or owed.

**Right to protection from discomfort and harm**: It is based on the ethical principle of beneficence. It states that, one should do good and above all no harm. Societal members should take active role in preventing discomfort and harm and promote good in the world around them.

## Ways to Protect Human Rights in Research

It is necessary to have an initial review of the proposed research protocol prior to initiation of the project and also to have regular monitoring for the compliance of the ethics of the approved study.

The Society devices measures to protect the study participants against possible harm and doing wrong. There are ethical guidelines, which are intended for researchers, investigators, and members of ethical committee and others who have to deal with ethical issues that arise in research studies.

The investigators and authors have to ensure that all the clinical studies are approved by an ethical committee before starting and that the patients are offered the opportunity to participate of not through written informed consent.

## **Promotion of the Rights of Participants**

Any volunteer who gives his or her consent to participate in a clinical research has the right to know the purpose of the clinical research, risk, side Effects that might be expected during the study and also has the right to know the study procedures and benefits that can be reasonably expected. The study subject has every right to refuse to participate before and after the research has started.

## **Informed consent**

Informed consent is the legal embodiment of the concept that each individual has right to make decisions affecting his or her own well-being. Voluntary and informed participation of individuals is necessary for research. Informed consent is essential to protect the participants, not the researcher and the institution. Informed consent is based on adequate briefing given to the participants about the details of the project. The briefing should be given both in verbal and in writing in a manner that the participants can understand. Researchers have a duty to ensure that the participants understand and comprehend the information given. It should include the following details:

- **Purpose of research**: The goal and objective of research should be presented in simple local language.
- Identity of the researcher: Name and address of the institution.
- Reason or methods for selecting the particular locality, community or any other settings.
- **Harms and benefits**: The possible anticipated and potential benefits or harms need to be informed.
- Measures to protect privacy, anonymity and confidentiality of data of the participant should be informed.

• **Right not to participate and withdraw**: Participants should be informed about their right to decline participation or to withdraw consent given at any stage of the research without undesirable penalty and so on.

If the data collection from the participant is to be done in more than one sitting, informed consent should be sought each time. Informed consent in the case of research with children (below the age of fourteen years) should be sought from the parents/guardians as well as from the children themselves. When the parents and guardians participate but the children have no interest, the rights of the children should be respected.

If a study is likely to record illegal or socially undesirable activity, a certificate of confidentiality should be obtained. Revealing identity of the study communities or institutions in the report would have an adverse effect, such disclosure should be avoided. Greater care should be exercised in protecting participants and their identity while publishing and disseminating result of research.

## **Privacy, Anonymity and Confidentiality**

The right whether to remain anonymous or to be identified lies with the participant. Clinical research may involve collecting and storing data relating to study participant, which cannot be disclosed to others. The privacy is considered widely as a crucial norm in ethical research and also in law. Data arising from research should ordinary be considered confidential and may not be shared with others without the consent of the subject.

#### **Precaution and Risk Minimization**

All research carries some risk to the participants and to society. It is essential to take adequate precautions to minimize and mitigate risks.

#### Beneficence

Research should also make a positive contribution towards the welfare of people. Study participants are treated in an ethical manner not only by respecting their decisions and protecting them from harm and also by making efforts to secure their well-being. The term 'beneficence' means act of kindness or charity that go beyond strict obligation which means do not harm and maximize possible benefits by minimizing the harm.

## Justice

The benefits and risks of research should be fairly distributed among people. The principle of justice gives rise to moral requirements in the sanction of research subjects and two levels, the social level and individual level.

- Individual justice in the selection of subjects required as researcher's fairness.
- Social Justice requires that distinction be drawn between classes of subject that ought and ought not to participate in particular kinds of research based on the availability of the participants.

## **Non-exploitation**

Research must not unnecessarily consume the time of participants. It should not expose them to risks due to participation in the research. The relationship within the research team, student and junior members, based on the principle of non-exploitation. Contribution of each member of the research team should be properly acknowledged and recognized.

#### **Transparency**

The content of research must be fair, honest and transparent.

#### **Avoid bias**

Bias on the part the researcher is unethical. Bias is a deliberate attempt either to hide the findings of the study or to highlight something irrespective of its true existence. Bias of any kind should be avoided.

## Use appropriate research methodology

Researcher has an obligation to use appropriate methodology in conducting a study and report the findings in the same manner it was found.

#### **Ethics Committees**

An established research ethics committee must review and approve all research proposals involving human participants.

- The primary role of a research ethics committee is to protect the rights and welfare of research participants. The primary responsibility of each member is to decide, independently, whether in his or her opinion the conduct of proposed research will protect the participants.
- Institutions or organizations that undertake research involving human participants should ensure there are adequate resources to establish and maintain ethics.
- The institution or organization must accept legal responsibility for the decisions and advice received from the research ethics committee.
- Committee must ensure that their projects are approved by an established ethics committee.
- The research ethics committee should consist of members who, collectively, how the qualifications and experience to review and evaluate the science, health aspects and ethics of the proposed research.
- Research ethics committee should be independent, multidisciplinary, multispectral and pluralistic.

## **Ethical Concerns in Qualitative Research:**

- a) Distress
- b) Misinterpretation
- c) Identification
- d) In convenience

## Ethical Concerns in Quantitative Research Related to the Stage of research.

- a) Research problem.
- b) Formulating the research questions.
- c) Research Design
- d) Collecting data
- e) Data Analysis

#### **Research Ethics Areas of Focus**

- 1) Harm
- 2) Informed consent
- 3) Deception
- 4) Reporting Results and Plagiarism
- 5) Reporting /Research Dissemination

## **Importance of ethics in Research**

- a) Ensure fullest respect Dignity, privacy, disclosure and fair treatment for subject.
- b) Promote the aims of research, such as knowledge, truth and avoidance of error.
- c) Since research often involves a great deal of co-operation and coordination among many different people in different disciplines and institutions.

d) Ethical standards promote the values that are essential to collaborative work. Trust Accountability Mutual respect Accountable to the public support Moral and social values.

# Students/Researchers Role in Research Ethics

- Ethical clearance should be obtained
- Need to get approval from guides and co-guides
- Unethical to publish including guiding and co-author
- Ethical issues regarding copy right
- Permission to use figures and tables from other published sources. Quotes may be used if properly referenced.

#### **Internet Ethics**

Development of internet over years led to use of internet based research. Numerous approached include web page content analysis, online focus groups, online interviews, analysis of e-conversations.

#### **Role of Peer Reviewers, Journal Editors and Researchers**

#### Fraudulent

If there is documentation or testimony from co-authors that publication did not reflect what had actually been done.

#### Questionable

If no co-author could produce the original data or had personally observed or performed or participated in research publication

## Types of Unethical Publications Plagiarism

Many people think of plagiarism as copying another's work or borrowing someone else's original ideas. But terms like 'copying' and 'borrowing' can disguise the seriousness of the offense.

According the Merriam-Webster online dictionary, to 'Plagiarize' means to steal and pass off (the ideas or words of another) as one's own or to use (another's production) without crediting the source or to commit literary theft or to present as new and original an idea or product derived from an existing source.

In other words, plagiarism is an act of fraud. It involves both stealing someone else's work and lying about it afterward.

Plagiarism instances are perhaps the most common of all research misconduct, in any field. Plagiarism can take different forms: copying another researcher's work verbatim, which is the most blatant form; using intellectual property without the express permission of the owner of those ideas; or lifting substantial portions of another's work without any citation of that author. While it often may be obvious when someone actually copies the work of another, what makes plagiarism especially complicated to contend with is that it is often very difficult to locate the exact origins of ideas.

## **Examples of Plagiarism**

a) Copying someone else's words without proper citation.

- b) Stealing someone else's ideas.
- c) Stealing someone else's intellectual property.

#### All of the Following Activities are Considered Plagiarism

- 1) Turning is someone else's work as your own.
- 2) Copying words or ideas from someone else without giving credit.

- 3) Failing to put a quotation in quotation marks.
- 4) Giving incorrect information about the source of a quotation.
- 5) Changing words but copying the sentence structure of a source without giving credit.
- 6) Copying so many words or ideas from a source that it makes up the majority of work, whether credit is given or not.

Most cases of plagiarism can be avoided, however, by citing sources. Simply acknowledging that certain material has been borrowed and providing your audience with the information necessary to find that source is usually enough to prevent plagiarism.

#### **Authorship Irregularities**

These include dilution of authorship responsibility 'guest', 'pressured' and 'ghost authorship', and obfuscation of authorship credit within by-lines. Other authorship irregularities include divided and duplicate publication.

In academic publishing the lead author, or first author, is the first named author of a publication such as a research article. Sometimes, journals require statements detailing each author's contribution to be included in each publication.

## **Publication Irregularities,**

The irregularity of the proceeding was unnoticed in the tense excitement. Irregular definition is –not being or acting in accord with laws, rules, or established custom.

#### **Scientific Fraud**

Scientific misconduct is the violation of the standard codes of scholarly conduct and ethical behavior in the publication of professional scientific research. Danish definition says, 'intention or gross negligence leading to fabrication of the scientific message or a false credit or emphasis given to a scientist'.

According to Swedish definition; 'Intention distortion of the research process by fabrication or data, text, hypotheses, or methods from another researcher's manuscript form or publication; or distortion of the research process in other ways'.

The consequences of scientific misconduct can be damaging perpetrators and journal audience and for any individual who exposes it. In addition there are public health implications attached to the promotion of medical or other interventions based on false or fabricated research findings.

#### **Research Misconduct**

The ethics of social and educational research has been significantly complicated over the last several decades as a consequence of the 'interpretive turn' and the ever-increasing use of qualitative research methods that have accompanied it.

In particular, research misconduct largely subsumes the protection of research participants. Nonetheless, it is a distinction that has the virtue of familiarity, since it parallels the way federal regulations and universities divide the issues in research ethics. One should observe at the outset that, medical research has been at the forefront of the ethics of research involving humans, both with respect to the development of vocabularies and frameworks and with respect to the formulation of federal policy.

This leads to a further kind of ethical complexity endangendered by the interpretive (qualitative) turn in social and educational research: how to report results. This issue is included under the heading of research misconduct because it involves the possible misrepresentation of data and possible researcher incompetence and because, for the most part, it is one step removed from the face-to-face interactions with participants that are central to issues falling under the rubric of the protection of research participants.

#### **CONCLUSION**

Increasing research activity, competition in research and the attractive research environment need to have application of ethics. To be ethical all human research participants must be scientifically sound. Ethics is as important as scientific consideration when reviewing a research project.

If research base on a robust design and in a safe and ethical manner, it can be of benefit to all. Professional codes, laws, regulations and ethics committees can provide guidance but ultimate the determinant rests with researcher's value system and moral code.

#### **SUMMARY**

Ethics is the branch of philosophy that deals with morals. As biomedical researches involve human subjects, it is very essential to safeguard the basic rights of the participants. The project should weigh for the potential benefits and risks before undertaking. If the risks outweigh the benefits, the study should be redesigned or abandoned. Adequate care and measures should be instituted by the researcher to protect the human rights.

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