

Importance Of Ethics In Scientific Research And Responsibility Of Scientists/Researchers

Posted on August 27, 2019

Ethics and Responsibility in Scientific Research

In modern research, it is essential for some researchers or beginners; to know the ethics in scientific research, its definition, importance, its process and its qualities, creating productive awareness of alternatives in the researches to carry out any scientific study respecting its nature, which could make possible the solutions of significant deviations for a society in constant dynamism and transformation of its multidimensional systematic processes. All of the scientists wishing to be part of the scientific world must understand the importance of ethics in research, otherwise the researcher is not doing original work but spreading information illegally recycled. The scientific importance lies in the exchange of data between researchers and extends beyond the replication of the findings since it can help answer new research questions that cannot be answered. The sources that are used in this essay are the best scientific journals; an exploration was carried out in the database of Atici & Erdemir under the criterion "Ethics in a scientific approach: the importance of the biostatistician in research ethics committees".

Virtue Ethics as a Moral Foundation

Aristotle refined the theory of virtue ethics by introducing the notion of measure, plus increased the number of virtues. Appealing to reason, the latter describes virtues as the mechanisms by which the good life is reached since they contribute to developing the capacity for honesty, pride, kindness, wit, judgment, friendship and even scientific knowledge, among others.

Publication Pressure and Unethical Authorship

In recent decades, there has been an increase in the duplication of authors in scientific journals, and this is caused by the pressure that researchers have to publish within the academy, which has generated various unethical practices by the authors. All researchers who wish to be part of the scientific world must understand the importance of ethics in research, otherwise this behavior is not doing science but illegally recycled information.

Humanity and Moral Choice in Research

One of the most important challenges for the researcher is to maintain humans in inhumane conditions (although legal); it is always possible to choose to be human, and it is always possible to be ethical. It is unthinkable that they are always contingent and reactionary. The fact fundamental to which they serve and on which all ethical duties depend is the desire for a more dignified and full life. The question is to know until what point the judgments and the decisions of the research work favour the lifetime. The question is whether the world of social responsibility research really takes into account the characteristics of life, such as a maximum of the ethical principles, to respond in favour of it. Thus, any act of investigative action must be framed with principles such as responsibility or equality, a concept which serves to define socially acceptable behaviours.

Cultural Relativism and Ethical Standards

Research must be done under conception of the so-called moral relativism, recognizing the cultural and in the traditions, uses and customs accepted in a given place and historical moment, only in this way is it possible to guarantee a social responsibility in favor of social needs. The deviation perverse of this position would be to base research on codes of morals according to the convenience and necessity of the scientific community.

Valuing the acts as correct or incorrect can be considered as an irrational fact. So, for example, to ignore the congruence of the society for which it is investigated, between its value system and the social mission that fulfills in places with purposes as diverse as a refugee camp, a school, a psychiatric hospital, represents a perverse deviation for society.

Historical Abuse of Human Research Participants

Scientific research with human beings has a long and uneven history, especially in the nineteenth and twentieth centuries. There is ample documentation on the abuse of ethics and human beings, especially those belonging to vulnerable groups, used for scientific purposes. Given this situation, the scientific community takes note of these abuses in a particular way after the Second World War, given the high visibility and surviving documentation of these abuses.

Ethical Qualities of Researchers

It should be noted that the researcher, in his integrity and professional practice, must meet certain qualities as an ethical profile, which will allow him to be a little more aware in his scientific investigations so as not to generate chaos in humanity. Among the qualities that a researcher must have while considering ethics, in addition to a certain mastery of the subject in which it is researched,

is the cognitive attitude, Attitude moral, reflective attitude, objective attitude, and Ability to use methods and techniques; it has to be ordered, Be persevering. In them, it can be clarified that some of the qualities available to the researcher are innate and others acquired through education and instruction; this reveals that the researcher himself must be aware of their possibilities and their shortcomings so that the latter can be resolved through practice and determination.

Intellectual Humility

It is necessary that the researcher does not assume dogmatic positions that do not consider himself the possessor of absolute truths, that does not say that the search has finished, that does not assume the attitude of ignorance. The researcher is required to have a love for research, with the awareness that it is the means to obtain scientific and philosophical knowledge, that is, rational knowledge.

Honesty and Integrity

The quality of the moral attitude or ethics refers to the honesty and responsibility that the researcher must assume in the exercise of his activities. For intellectual honesty, the researcher should not alter or modify the data or change the meaning of what is expressed by other researchers who are consulted. It requires weighing the fair value of the contributions of every author without making excessive criticism; it implies recognizing other people's merits and avoiding plagiarism.

Reflective and Critical Judgment

The quality of the reflective attitude in the ethical values refers to the critical sense with which the researcher must develop his work of analysis of sources, to the detailed attention he must provide in the detection and selection of the problems involved in his research, to the judicious position to carry out the verification of its hypotheses, as well as the careful examination of the projection of the different activities involved in the research process. By having this quality, the researcher is able to make personal contributions and propose approaches to future research.

Objectivity and Impartiality

The quality of the objective attitude in the ethical values refers to the disposition that the researcher must have in order to study and focus sources of knowledge as they are. It refers to the intellectual impartiality and independence of criteria to judge the data and thoughts of others and to the ability to go through the stages of research free from prejudices, opinions and preconceived ideas. This quality, because it is based on a realistic criterion, refers to the capacity of self-criticism that the researcher must have in order to recognize and correct errors (Galston, 2008).

Methodological Competence

The quality of skill in the handling of methods and techniques is also a part of ethical values. As its name implies, this quality refers to the ability of the researcher to select and apply the methods and techniques appropriate to the activities of the research process. The quality of being ordered lies in those people who are accustomed to ordering their things and systematizing their thoughts. A good researcher is characterized, among other things, by his ability to organize the activities of his work through plans to which he follows up.

Perseverance and Responsibility

The quality of perseverance refers to the constancy that the researcher must present in the achievement of the objectives of his work; it has to do with ethics in order to achieve the expected results. The work that the researcher has to do is arduous, so the person who carries it out should know how to persist and be patient, even in spite of obstacles or difficulties that may arise.

Ethics in Contemporary Society

Ethics, today, from the post-modern universal perspectives, are due to the great transformations in contemporary society, starting from the critical thoughts of humanity by their different systems of socio-political, socio-economic, and socio-cultural, which have become a competitiveness of innovation and development and research within science. That is why each researcher, from his authentic and original point of view, has tried to apply scientific research, adapting it to each environment or context in which the phenomenon under study is found due to the existence of significant deviations in relation to the practices of the human talent and its organizations, considering ethics as an essential axiological principle within it; by assuming factual knowledge as lived in social transformations, respecting the physical integrity of the human being and his right to life and the existence of every living being in humanity. Alternatives or possible solutions are also found to the imbalances of the practices and actions at the moment in which the phenomenon under study is characterized and is detected by problematic situations in the hands of any researcher (D. Drenth, 2006).

In this sense, those paradigmatic and contemporary changes that most countries live on a universal level have considered ethics as the light or starting point of the 21st century. Researchers have allowed experts and specialists to make adjustments and improvements within their research practices, creating new methodologies that facilitate viable alternatives to respond to the needs that are lacking in leadership adaptability, change and innovation immersed within social transformations that could come to be seen as human talent and impact organizations of an efficient and sustainable productive society (Cooper & McNair, 2014).

Meaning and Purpose of Scientific Research

The researchers defines scientific research as a human activity carried out in order to know, reason and achieve a solution to certain questions, it is conceived through the application of the scientific method managing relevant information and with logical sense to understand, verify, decide, correct or apply knowledge from a series of logical actions. That is why research is always given high importance; it is an activity aimed at acquiring knowledge from a certain contextual situation. It can be pointed out that it is subject to a series of factors and obstacles. The factors that affect the development of an investigation can be of two types: the objectives and the subjective ones.

Ethical Planning and Risk Prevention

In scientific studies, researchers must be very careful about what to do, why, and how. The researcher will do it without affecting himself and his nature. It is for this reason that ethics is given high importance in research as development in the social world, part of the sociocultural development practice and its implications for humanity, contributing to the strengthening of scientific-educational-technological practices, focused on the attention, preservation of the subjects and all living beings of any nature and not in the processes or in the results of the innovations and the investigations themselves (Waelsch, 1972).

Replication Data Sharing and Scientific Trust

Science advances through the replication of results through the research it synthesizes, and with this, it extends the conclusions of individual studies. The surprising thing is that the exchange of data, ethics, and the synthesis of the research have received so much attention in the literature that there is concern about a crisis of confidence in several academic fields. The scientific importance lies in the exchange of data between researchers and extends beyond the replication of the findings, as it can help answer new research questions that cannot be answered.

Principle of Beneficence

In scientific research, according to Cooper & McNair, 2014, some principles should be considered. The principle of beneficence seeks to maximize the benefits and minimize the damage. Therefore, the participants in an investigation or their representatives must know the risks and benefits that they will achieve with their participation in clinical trials; it must be achieved that the risks are minimal and associated with the maximum benefits that will be achieved (Kaminskii, 2011).

Principle of Autonomy

The principle of autonomy, also called respect for people, is based on the foundation that the human being has the capacity to give himself his act as a person, that is, to determine his own norm; autonomously has the freedom to choose, applying its own reasoning and once analyzed the negative and positive aspects, will determine what behaviour to follow.

Principle of Justice

The principle of justice, along with scientific research, can assert that justice is identified with good and right. It is expected, therefore, in this context that all people benefit from the results of the experiments, which are actually carried out in the groups that need to be investigated and that only vulnerable populations are used when the consequences are beneficial. The principle of no maleficence obligates everyone in a primary way and, therefore, precedes any type of information or consent and aims not to harm the patient, which would morally obligate the researcher to look for the lowest possible risks for the subjects of experimentation.

Good Intentions and Formal Safeguards

According to Fântânariu, 2012, although most scientists choose their profession with the intention of improving the conditions of humanity, good intentions are not enough to guarantee ethical treatment and responsibility for human participants in scientific research. The damages of an investigation are not confined to physical damage in medical experiments; they also extend to psychological damage and social exclusion independent of the study area. He says that is why academic institutions have created ethics committees.

Protection of Vulnerable Populations

For developing countries, these entities acquire particular importance given the need to protect their vulnerable populations and to ensure that investigations conducted by local and foreign entities not only ensure the integrity of the participants but also ensure the equitable distribution of research benefits. In this sense, academies have an active role in justice and in which the most vulnerable populations of our country benefit from the science that develops from their data. Ensures that the House of High Studies, in line with its values, has a research ethics committee, as well as a collection of documents that guide administrators, teachers and students in the ethical management of their research projects.

Values in Basic Research

It is possible to rationally justify two ideas of basic research: the first refers to the fact that the investigative action is made by people who may or may not share their own values. The opposite would not be done because there is no ethical body external to the subject researcher who should and can fulfil that role. The second conviction is to accept that within these values, the construction of a more humane world is based on the social responsibility that meets the investigation.

Conclusion on Research Ethics

The essay has concluded that ethics is important in the academic and scientific system, because the term ethics goes beyond the procedures and norms, it must be thought that they are laws by concept and practicality that contribute to the growth of academia. After the presentation of an exhaustive review of the literature, it can be concluded that ethics have importance in the academic and scientific system, in which they are based on the trust and good faith of all the people who participate; that is, the fact that the rules are not explicit, there is no excuse for compliance. This is not about legality but about ethical values. The ethical term goes beyond the procedures and norms, it should be considered that they are laws by concept and practicality, because it would be impossible to quantify circumstances in which it is necessary to handle ethical judgments to resolve what to do or what not to do.

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