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ETHICAL DILEMMAS IN RESEARCH AND SCIENCE EDITING

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DEFINITION

- Generally, unethical behavior in biomedical research is any significant mistreatment of intellectual property or participation of other parties, deliberately obstructing the process of investigation or distortion of scientific evidence, as well as all the behavior that affect the integrity of scientific practice.
- In 2000 the United States defined the unethical conduct in scientific research as fabrication, falsifying and plagiarism in the process of proposing, conducting and publishing the results.

FACTORS

Studies show that the unethical conduct is directly related to the following factors:

- Increased academic expectations and a greater desire for publishing papers;
- Personal ambition, vanity and desire for fame;
- Laziness;
- Greed, which is directly linked to the financial gain;
- Lack the moral capacity to distinguish right from wrong.

ETHICS IN SCIENTIFIC PUBLISHING



ETHICS IN SCIENTIFIC RESEARCH



AUTHORSHIP

- In a broad sense, the author is any person who had significant intellectual contribution to a particular study.
- The International Comitee of Medical Journal Editors ICMJE as recognized organization dealing with ethical issues in biomedical research, defines authorship follows:
 - 1. Significant contribution to the concept, design, collection, analysis and interpretation of the study;
 - 2. Writing study template, or revision in terms of intellectual content;
 - 3. Final approval of the version to publication.
- The author needs to meet all three.

AUTHORSHIP

- Every scientist has its own vision of what it takes to become the author.
- But often, among the authors of a project this visions are different. Personal conflicts and turmoil can often lead to disagreements on the issue of to whom belongs the authorship.

GHOST AUTORSHIP

- Ghost authorship occurs when an individual who has significantly contributed to and participated in the development of specific scientific work, is not listed as an author.
- A special form is a publication of the work og ghost author on the request of industry, where is questioned the credibility of the results, on account of conflict of interest.
- An example is a situation where influential pharmaceutical industry or any party can offer the benefit, employs professional writers or agencies to produce article that will later be attributed to a particular recognized scientific researcher.

GHOST AUTORSHIP

- Practical example Redux case
 - The drug dexfenfluramine and phentermine (fen-phen) bycompany Wyeth-Ayerst Laboratories.
- Ghost authorship raises many ethical questions such as:
 - 1. Conflict of interest;
 - 2. Academic integrity.

DUPLICATE PUBLICATION

- It is defined as a publication of an article which is identical or largely overlaps with the article already published with or without acknowledgment.
- Two articles share the same hypothesis, results and conclusions.
- The authors are trying to reach the readers who may not be familiar with already published article, especially if it is in another language, such as Chinese.

DUPLICATE PUBLICATION

- Duplicate publication is considered unethical for several reasons.
 - The first is that in an inadequate way attempts to increase the scope of their own published works, other important, is that the article has the potential to change the image of documents.
- For example, if the results were taken into account two or more times in a meta-analysis, the results would not be valid.
- A study was conducted of all published papers in which was investigated the effect of the drug ondansetron, on postoperative vomiting. It was observed that 17% of published papers was duplicates, in which 28% of patient data was a duplicate. This has led to a situation in which the efficacy of this drug was increased by 23%

DUPLICATE PUBLICATION

- This example points out the danger of duplication of publications by scientists who have conducted research, especially when making conclusions about the efficacy and safety of a drug.
- Good practice in publishing an article requires that authors can submit drafts of their work only to one journal at a given moment.
- Regardless of this, still duplicate papers occurs and as such continues to be a significant problem across scientific journals.

REDUNDANT / REPETITIVE PUBLICATION

- Is defined as the publication of copyright material with the addition of new, unpublished data. So this is a form of unethical conduct in science, where part or parts of already published article occurs, but not complete article are published again.
- First, it undermines the international copyrights. Second, the duplication of data with new data consumes valuable time of peer-reviewer. Third, unnecessary expansion of huge amount of published literature. Fourth, inadequate highlights on certain information, so that it seems that they occur more often than is the actual case. Interfere with subsequent meta analysis.

REDUNDANT / REPETITIVE PUBLICATION

- COPE, Comittee on Publication Ethics proposes several recommendations concerning duplicate publications:
 - Already published studies should not be republished if they do not support the further study
 - Duplicate publication of article that has been published in another language is permitted only when clearly indicate the original source
 - At the time of the article submission, the authors must submit the materials that are used in their article.

FABRICATION / FALSIFYING DATA

- Fabrication and falsification of data represents half of all cases reported as a form of unethical behavior.
- Falsification of data includes its creation, the selective publication of results (or those corresponding to the study goals) and the omission of conflicting data, as well as the conscious withdrawal or modification of data.
- This can include everything from the rejection of unwanted piece of information to their unfounded fabrication.

FABRICATION / FALSIFYING DATA

- This is unethical for several reasons:
 - It affects the integrity of other studies, also the author who is their creator, but also other authors from the same field of science
 - If such article is not disclosed on time, in vain will be other authors loss of energy and time trying to take advantage of the presented results in their studies
 - It creates a negative image of science in general and affects the heart's trust
 - The problem of this kind of behavior is particularly evident in clinical studies and may have negative consequences for patients.

CONFLICT OF INTEREST

- The research and publication of scientific papers is vital for preservation of objectivity in order to preserve the integrity of the research, the reputation of the institution that conducts the study and journals that published the study.
- From the authors conducted a study is expected to objectively present the results of the research, and from the reviewers to objectively evaluate them.
- Conflicts of interest may be individual or institutional.

CONFLICT OF INTEREST

- New England Journal of Medicine introduced a ban on authors writing review articles if they had a financial interest in the company concerning the research.
- But in recent years it is increasingly difficult to find authors who are completely independent of the industry.
- Financial interest means everything from salaries or other allowances, interest in shares and intellectual property (patents, copyrights, etc.)

AS PART OF PREVENTIVE MEASURES SHOULD BE TAKEN:

- Make ethical standards very clear to all researchers.
- Provide education and training for all researchers.
- Clearly identify methods of sanctioning such behavior.
- Introduce stricter control of sponsored research.

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