

SIGMAR DE MELLO RODE

<https://orcid.org/0000-0002-4261-4217>

UNIVERSIDADE ESTADUAL PAULISTA

JÚLIO DE MESQUITA FILHO

GUIDELINES ON BEST PRACTICES FOR STRENGTHENING

ETHICS IN SCIENTIFIC PUBLICATION

https://doi.org/10.21452/procpc_06

Dissertação apresentada como parte dos requisitos
para certificação no CSE Publication Certificate
Program

São Paulo (SP)

2020

Guidelines on Best Practices for Strengthening Ethics in Scientific Publication

Abstract

Best practices on ethics in scholarly communication apply to journals specially, given their condition as validators of research, and especially to improve papers to increase the integrity and reproducibility of research and align scientific values and practices, focused on journal policies and practices. The goal of this project is to present a code on Best Practices for Strengthening Ethics in Scientific Publication specifically for SciELO (Scientific Electronic Library) Brazilian journals indexed. The code is a proposal for the conduct, which can be used in full or in part in the SciELO journals instructions to authors or as a reference to create their own journal code. This guideline should be developed, disclosed, and updated annually together with the SciELO team.

Keywords – Ethics; scientific integrity; scientific misconduct; scientific journal.

1-Introduction

Today's scientific publication depends on a dynamic set of resources and international communication has been significantly increased over the past decades due to the widespread use of the internet and different websites. Reviewers' comments, website posts, or nonscientific media can start or spread rumors of possible misconduct, Editors must objectively face the concerns and investigate the allegations. This is an area where academics are actively trying to help policymakers and heads of state make decisions.

Best practices on ethics in scholarly communication apply to journals specially, given their condition as validators of research. They apply to the management of the journal and its editorial practices with an emphasis on relations with authors and especially in the evaluation of their manuscripts to improve papers to increase the integrity and reproducibility of research and align scientific values and practices, focused on journal policies and practices.

The goal of this project is to develop a code on Best Practices for Strengthening Ethics in Scientific Publication specifically for SciELO (Scientific Electronic Library)¹ Brazilian journals indexed. The SciELO Brazil Collection has 296 journals. SciELO establishes quality criteria and, among them, the journal must have in its instructions to the authors clearly and objectively how it acts concerning misconduct and best practices in a scientific publication. A potential way to impede research manipulation and fraudulent results.

The code is a proposal for the conduct, accepted by SciELO network, which can be used in full or in part in the SciELO journals instructions to authors or as a reference to create their own journal code, since it will be made available in the open access under the CC-BY license, or simply refer to that use this code of conduct, which will be published on the SciELO Internet page in three languages: Portuguese, Spanish, and English (SciELO teams' translation). This code must be developed, disclosed, and updated annually together with the SciELO team and SciELO journals.

The code of conduct needs to be sufficiently documented to enable others to check and re-use it and includes information on dependencies, operating forms, technical requirements, and terms of use to scientific journals.

As the code of conduct is a central element of the journal and the research output, it should be shared and cited via a permanent identifier (DOI) in a form that facilitates wider use by the academic community and recognition of its own value.

This code of conduct is based on

- 1- "Principles of Transparency and Good Practice in Academic Publications" recommended by the Committee on Publication Ethics (COPE)^{2,3},
- 2- CSE's White Paper on Promoting Integrity in Scientific Journal Publications^{4,5}
- 3- International Committee of Medical Journal Editors (ICMJE)⁶,
- 4- Equator Network⁷
- 5- World Economic Forum⁸
- 6- The Office of Research Integrity⁹

7- Hong Kong Principles for assessing researchers¹⁰

8- Declaration On Research Assessment (DORA)¹¹

9- FAPESP Code of Good Scientific Practice¹²

10- Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)¹³

11- SciELO - Guide to promoting the opening, transparency and reproducibility of research published by SciELO journals.¹⁴

2) Best Practices for Strengthening Ethics in Scientific Publication

This document serves as a standard for all journals of the SciELO Network collections. The SciELO program follows standards and recommendations of ethics standards and accountability in scholarly communication established by national and international institutions²⁻¹⁴.

This guideline promotes integrity and transparency in the manuscript evaluation process and research reproducibility, on the occurrence of data manipulation or fabrication, the unreferenced copy of data or the text of another author, duplication of the publication of the same text or research, conflicts of interest, or authorship^{15,16}.

Everything that is published in the journal, as well as necessary corrective actions, is the editor-in-chief's responsibility. In this sense, this guide explains concepts and actions that promote integrity in the publication process and referrals in cases of suspected or proven misconduct.

2.1 - Responsibilities of the editor-in-chief

The responsibility of the editor-in-chief can include editorial policy implementation, oversight of the editorial process, and journal relations with authors, reviewers, readers, indexers, funding agencies, the scientific community, and the general public²⁻⁶. Particularly, transparency and quality control are essential aspects of the editorial process under the editor-in-chief's responsibilities^{10,17}.

The peer-review process is the independent evaluation of research findings and other types of scholarly outputs to assess validity, significance, quality, and originality, by qualified experts (peers) who also provide advice on suitability for publication. Peer review can be complex, inconsistent (there are differences between reviewer comments that editors must arbitrate between), timebound (people are busy and it can feel slow for everyone!), based on trust ('peer-reviewed as a proxy for trust'), can be manipulated, can be biased, difficult to assess "quality," and it's conducted by humans, which can, of course, lead to all of these complexities.

The COPE Code of Conduct for journal editors noted that "Editors should not simply reject papers that raise concerns about possible misconduct. They have ethically to pursue alleged cases." ¹⁸

Editors should consider what the attitudes of their community are toward different types of review, the importance of making sure instructions for reviewers are clear so they know what will be shared openly, thinking if the review reports are transported with the paper if you also let the reviewer make confidential comments to the editor, and do you want to publish all the peer review-related information.

Therefore, since journals do not normally have access to all the relevant information, their peer reviewers and editors can only be able to indicate they suspect that something is wrong, without being able to define the problem precisely.

Journals should retain peer review records to enable one investigation of peer review manipulation or other inappropriate behavior by authors or reviewers.

2.2 - Identification of scientific misconduct

Regarding best practices for strengthening the ethics in scientific publication, the editorial process, after complying with the formal aspects required ensures that all authors review and take accountability for the content and record the contribution of each one at the end of the manuscript^{6,9,14}. Proof can be provided by digital signature or confirmation, including whether there is any conflict of interest, which should be explicit in the publication^{4,5,7}. When there is

any questioning regarding authorship, contact is to be first established with the corresponding author and, if necessary, with all authors. In case of an impasse, the authors' affiliation institutions or funding agencies involved in the research development should be contacted^{3,4,5,6,7,10,11}.

As far as the subjects involved in the research are concerned, the editorial process requires authors to present antecedents, such as the position of the corresponding ethics committee, authorization of the subjects, and clinical trial records, among others. When there is doubt or questioning, the editor-in-chief should contact the corresponding author and, if necessary, all authors requesting the completeness of the data.

The presumption, at this stage, is that the authors are “innocent until proven guilty.”

To promote the predominance of the originality of the texts, the journal should adopt software for duplicity verification with published texts. The journal informs the authors on the software in use during the article submission process^{15,16}.

When there is doubt or questioning, the editor-in-chief should contact the corresponding author and, if necessary, all authors. If duplicity is proven, the authors' affiliation institutions or funding agencies involved in the research development are to be contacted²⁻⁷.

When there is doubt about the inclusion of citations and their references, the cited document is checked or requested a correction by the journal. When there is doubt or questioning, the editor-in-chief should contact the corresponding author and, if necessary, all authors. When in the evaluation process, editors or reviewers identify excess self-citing by authors or the journal, or both, the corresponding author, and, if necessary, all authors are contacted for clarification to support decision making.

Editors and reviewers should privilege impartiality, integrity, and confidentiality in their evaluation, prioritizing constructive criticism and the time frame agreed with the journal. When there is doubt or questioning, the editor-in-chief should contact the corresponding editor or peer reviewers, or both.

The fabrication or falsification of data and images are serious cases of misconduct. The evaluation process should be judicious in identifying such misconducts. In case there are any doubts, the authors are requested to provide supporting evidence of the methodology and results. In case of proven misconduct, by the journal, the editor should inform the authors' affiliation institutions or funding agencies involved in the development of the research²⁻⁵.

2.3 - Support mechanisms on decisions regarding misconduct

The journal should inform the Instructions to Authors how it receives reports of suspected misconduct.

In cases of doubts or questioning considered previously, the journal should follow the COPE flow diagrams^{2,3,18} for identification and guidance on misconduct. Eventually, in case the journal's decision is challenged, a committee of members of the editorial board, and external to the journal, should be assembled.

2.4 - Guidance on decision making on retractions and errata

The published article in which misconduct is identified remains indexed in the SciELO database in the retracted condition. The retraction substantiates the reason for the withdrawal duly referenced, through communication by the author, editor, or another authorized agent and published in the same journal^{2-5,14,17, 18}. Retraction can be partial when the misconduct applies to a specific part of the article, without, however, compromising the set of published research. The article has not to ever be "unpublished."

Cases of errors or failures, regardless of nature or origin, that do not constitute misconduct, errata corrected them^{2-5,14, 18}.

The journal should publish as promptly as possible errata, corrections, or retractions.

3) Final considerations

The purpose of these recommendations is to the trustworthiness of research publications, review best practice and ethical standards in the conduct and reporting of research and other material published in SciELO's scientific

journals and help authors, editors, institutions, and others involved in publishing create and distribute accurate, integrity, unbiased papers.

The interaction between authors, journals, and institutions improves the quality and credibility of scientific publications, mainly because the institutions effectively participate in the process by developing mechanisms for assessing the validity of research reports and possible misconduct.

Because of the possible serious consequences of a misconduct finding, and the importance of conducting rigorous and fair proceedings, thresholds for launching a full inquiry or investigation must be high.

4) References:

1. SciELO – Scientific Electronic Library Online. Available from:

<http://www.scielo.br/>

2.COPE - Committee on publication ethics, 2018. Available from:

www.publicationethics.org

3.WAGNER, Elizabeth et al. Retractions: Guidance from the Committee on Publication Ethics. Croat Med J., [s. l.], v. 50, n. 6, p. 532–535, Dec. 2009.

Available from:

https://publicationethics.org/files/u661/Retractions_COPE_gline_final_3_Sept_09_2_.pdf.

4. COUNCIL OF SCIENCE EDITORS. CSE's White Paper on promoting integrity in scientific journal Publications. [2020]. Available from:

<https://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/>.

5.ABEC BRASIL. Diretrizes do CSE para promover integridade em publicações de periódicos científicos, 2012. Available from:

https://www.abecbrasil.org.br/arquivos/whitepaper_CSE.pdf

6. INTERNATIONAL COMMITTEE OF MEDICAL JOURNAL EDITORS (ICMJE). Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals. [2019]. Available from: <http://www.icmje.org/icmje-recommendations.pdf>.
7. Equator Network, 2008. [viewed April 2018]. Available from: www.equator-network.org
8. WORLD ECONOMIC FORUM - Code of ethics for researchers, 2018 [viewed April 2018]. Available from: <https://widgets.weforum.org/coe/>
9. THE OFFICE OF RESEARCH INTEGRITY. Definition of research misconduct. [2020]. Available from: <https://ori.hhs.gov/definition-misconduct>.
10. MOHER, D. et al. The Hong Kong Principles for assessing researchers: Fostering research integrity. Plos Biology., [s. l.], v. 18, n. 7, p. e3000737, July 16, 2020.
11. DECLARATION ON RESEARCH ASSESSMENT (DORA). San Francisco Declaration on Research Assessment. [2012]. Available from: <https://sfdora.org/read/>.
12. FAPESP. Code of good scientific practice., 2014. Available from: https://fapesp.br/boaspraticas/FAPESP-Code_of_Good_Scientific_Practice_2014.pdf
13. Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq). Relatório da Comissão de Integridade de Pesquisa do CNPq. (2011). Available from: <http://www.cnpq.br/web/guest/diretrizes>
14. SciELO. Guide to promoting the opening, transparency, and reproducibility of research published by SciELO journals. Available from: https://wp.scielo.org/wp-content/uploads/Guia_TOP_en.pdf
15. FOLTÝNEK, T.; MEUSCHKE, N.; GIPP, B. Academic Plagiarism Detection: A Systematic Literature Review. ACM Comput. Surv., [s. l.], v. 52, n. 6, 2019.
16. KROKOSCZ, M. Plagiarism in Articles Published in Journals Indexed in the Scientific Periodicals Electronic Library (SPELL): a comparative study between

2013 and 2018. International Journal for Educational Integrity, São Paulo, v. 17,n. 1, p. 2-22,2020.

17. STAVALE, R. et al. Research misconduct in health and life science research: a systematic review of retracted literature from Brazilian institutions. PLOS One, 15;14(4):e0214272. [doi: 10.1371/journal.pone.0214272](https://doi.org/10.1371/journal.pone.0214272). [eCollection April, 2019.](#)

18. COPE Retraction guidelines. Available from: <https://doi.org/10.24318/cope.2019.1.4>