

PEER REVIEW: IMPORTANCE, RESPONSIBILITIES, AND BENEFITS

Revisão por pares: Importância, responsabilidades e vantagens

Within the academic and editorial settings, peer review (or arbitration) is a collaborative process that allows manuscripts submitted to scientific journals to be evaluated and commented upon by independent experts in the area of the manuscript/study or medical specialty. The evaluation and critique resulting from the peer review provide authors with suggestions to improve the quality of their manuscripts and allow editors to critically evaluate whether the paper is suitable for publication in the journal.

Peer review has been used for almost 300 years, despite the prevailing attitude of scientists back in time of keeping their findings in secrecy or within a small circle.¹

In view of the significant increase in the number of scientific articles published worldwide, especially of health research, there has also been an increasing demand for reviewers to deal with the avalanche of manuscripts received by scientific journals. Even globally renowned journals have had difficulty finding reviewers who are willing to volunteer their knowledge and time to review manuscripts. In the study conducted by Fox,² the analysis of peer review data from approximately 52,000 reviews of 24,000 research papers submitted to 6 different journals showed that editors had difficulty recruiting reviewers. In this study, only 22% of invited reviewers promptly agreed to review the manuscript.

The reviewer of papers submitted to scientific journals is an important protagonist within the academic system, as well as of the editorial process, being of paramount importance for the development of science while having an enormous social responsibility. In the field of geriatrics and gerontology, this responsibility becomes even more concrete. When reviewers recommend publication, they support that the study has the minimum technical quality level to be released into the scientific community. With the advent of publication in electronic journals (concomitant to publication in print or online only), often available to the lay public, the results of poorly conducted and/or interpreted studies may promote iatrogenesis and quackery in gerontological clinical practice, *e.g.*, by suggesting a medical intervention whose benefits do not outweigh the risks of harm.

Some important aspects that may enhance the peer-review process^{3,4} are presented below as recommendations for potential reviewers:

- promptness: if you are invited, promptly respond to the e-mail, either accepting or declining to review, as this gives editors more time to invite other researchers if necessary;
- professionalism: peer review is a mutual responsibility among fellow scientists, and scientists are expected, as part of the academic community, to participate. If you expect others to review your work, you should also commit to reviewing your peers' work, putting some effort into it;
- pleasantness: if you receive a low-quality study, suggest that it be rejected, but do not make derogatory comments to the author. Ensure that your review is scientific, helpful, and courteous. Be sensitive and respectful with word choice and tone in the review;
- collaboration: suggest how the authors can overcome the shortcomings of their study. The review should guide the authors on what is good and what needs to be improved from the reviewer's perspective. Reviewers play the role of a scientific peer, not an editor for proofreading or decision-making. Do not make comments on editorial or typographical issues. Instead, focus on adding value to the scientific knowledge and commenting on the credibility of the research conducted and conclusions drawn. If the manuscript has many typographical errors, suggest that it be professionally edited and proofread as part of the review process;
- timeliness: stick to the timeline given when conducting the peer review. It is important to be timely out of respect for both the journal and the author;

- limitations: reviewers should be realistic about the work presented regarding the changes they suggest and their real importance. Reviewers who suggest changes that are too sweeping, setting the bar too high for the original paper, make it difficult for authors to resolve issues. In this case, consider rejecting the manuscript as an option;
- organization: reviewers should proofread their recommendations before submitting them to the journal to avoid structural, grammatical, and spelling errors as well as to improve clarity. Begin with an overview of the proposed improvements; then provide feedback on the manuscript structure, the quality of data sources, and the methods used for investigation, on the logical flow of argument, and on the validity of the conclusions drawn.

Although reviewers do not make any economic profit out of the peer-review process, other benefits should be considered, such as increasing the network of researchers in their field of study, increasing their chances of collaborative participation in future multicenter studies, increasing their knowledge by keeping up-to-date in their field of research, and improving techniques and forms of scientific writing, among others.

The peer-review process is a key element in the development of science and its practical applicability. However, it is not the exclusive responsibility of editors and may reflect the scientific maturity of a country.

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