

**EDITORIAL****The peer review process .**

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The peer review process is the method chosen by scientists to assess and ensure the quality and validity of publications. There is general consensus that this is an imperfect process and has been much criticized. However, it is the method currently in use, and it has served its purpose up until today<sup>1</sup>. In this context, the functions of a reviewer can be summarized in two: say whether the manuscript should be published – advising the editor in his/her final decision; and make comments that may help the authors to improve the manuscript. Peer review is always useful whether the manuscript will be published in that specific journal or not<sup>2</sup>.

Both functions are complementary, and authors should remember that the review is carried out by colleagues (peers), who dedicate part of their own time to this altruistic activity. Peer review is intended to minimize errors in the publications, to ensure consistency with the scientific corpus and to prevent fraud. It is considered an honor, though certainly it sometimes can become a burden.

It is always advisable to facilitate the task of reviewers, avoiding mistakes that could predispose them against the work they are reviewing; so the manuscript must be carefully edited and checked before submission. Editors and reviewers appreciate a manuscript even more when authors have shown genuine interest in their document.

The way the text is written, the order of ideas, concreteness and attention to details must ensure maximum readability. Authors should remember that their target audience is not normally specialists, and that science must be transparent: if it cannot be understood and internalized by others it is only research. Usually, when a reviewer does not understand some concepts, it is because they are not sufficiently explained. We must remember that the reviewer is usually an expert and if he/she does not understand well what has been said, how can the potential readers understand the text when they are less familiar

with the topic? My experience tells me that authors tend to think that everyone knows in detail their work and techniques, but unfortunately this is not always the case.

Authors should do whatever they are supposed to do before submission: each journal has its own standards in terms of number of words, number of images, tables and bibliography format. Some require subtitles, highlighting the most interesting aspects of the work, lists of possible reviewers, specific formats for images or tables, or information about the contributions made by each of the signing authors, among others. All of these requirements should be met completely. Authors should prepare and review the manuscript entirely, in all its aspects, before sending it.

Authors ought to keep in mind that the central part of a study is the section where materials, subjects, methods and analysis are described. This is the section in which authors describe what they want to do and what they have done, which is not always the same. If somebody were to judge the quality of a manuscript by assessing just one of its parts, it would always be this one. It should be the easiest section to write, because it is the detailed description of the process followed, but it is also almost always the most difficult to understand. Authors should have this section reviewed by someone who has not been involved in the study, someone who does not know anything about the detailed methods of their particular research. They should write clearly; use schemes in subsections to explain different methods; justify and identify the groups, keeping the terminology consistent in the whole manuscript; and refer to other publications in which those methods have been already used, if appropriate. If something is not essential, keep it out, but make sure to include everything that is important.

Another critical point is statistical analysis. This is a section that new authors often see as an inevitable nuisance.



sance. They usually have the study design and execution done by someone who is not participating in their research. This is potentially a serious error, as the analysis must be appropriately designed to answer the research question. A statistician knows his/her subject but they may ignore the specific details of the study. If the authors cannot do the statistical analysis, they must make sure that whoever is going to carry it out should know exactly what they want to do and what they to try to find out.

Authors should establish the aims and motivations of the study clearly. Consequently, they should state in the introduction what the problem is, the current state of affairs and why the study is relevant. Nowadays the ever-increasing number of manuscripts submitted for publication has put a great pressure on journals resulting in a Darwinian competition: only the fittest will survive.

One of the characteristics of those manuscripts that survive is that they are able to show that the study answers relevant questions about relevant matters.

A good manuscript will include a discussion in which the authors analyze the process in depth, explain the importance of their findings and identify the uncertainties that have risen from the experiments, or due to the accuracy of measurements, the variability of samples or patients, or to statistical significance.

In short, it is always good to remember that the purpose of a manuscript is to convince with the truth, and the clearer it is, the greater the impact on readers.

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