

## EDITORIAL

# How to review a scientific manuscript and get credit!

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### *What do we mean by manuscript reviewing*

The peer-review process facilitates assessment and evaluation by experts to ensure scientific manuscripts are methodologically correct, adds to the knowledge of the field, is written in a way that is understandable and represents a type of research that is beyond descriptive. When an author submits a manuscript to Pediatric Research for publication, it is initially evaluated by the Editorial Office and is then assessed by the Editors in Chief and Editorial Board for suitability to be published in the journal and if it requires peer review. At this stage experts in the topic of the manuscript are requested to review the paper and ensure scientific rigor. Peer review is crucial in the advancement of scientific knowledge.

#### *Why review?*

The benefits of reviewing to the individual reviewer include advancement of their knowledge of the field, improved understanding of the review process to aid their own publishing, supporting the scientific community, improving science and especially to allow patients to benefit from new advances in the field. However, reviewing can be time-consuming.

#### *How to become a reviewer*

There is no one way to become a reviewer but there are some common routes as follows: Asking a colleague who already reviews for a journal to recommend you; Networking with editors at professional conferences; Becoming a member of a learned society and then networking with other members in your area; Contacting journals directly to inquire if they are seeking new reviewers; Seeking mentorship from senior colleagues; Working for senior researchers who may then delegate peer review duties to you; joining with a mentoring program for early career researchers looking to become reviewers.

#### *Who Can Become a Reviewer?*

Potential reviewers are accessed from experts in the article's research field. Editors might ask a reviewer to look at a specific aspect of an article, even if the overall topic is outside the reviewer's area of expertise. The reviewer simply needs enough specialist knowledge to evaluate the manuscript and provide constructive criticism to editors and authors and, a good reviewer can be at any stage of their career. It is important for reviewers to keep their areas of expertise accurate and up to date in a journal's internal reviewer database and in external databases, like the Web of Science. This ensures editors can accurately send requests to appropriate reviewers to review manuscripts in their areas of expertise. Reach out to the Editorial Office of the journals for which you review to make sure your information is correct.

#### *Starting the manuscript review*

The following are essential initial steps to avoid unnecessary delays. Upon receipt of a manuscript for review, one needs to check the deadline, editor's letter (reviewer invitation?), conflict of interest and scope of the journal. Double-check the deadline to ensure that there have been no misunderstandings regarding timing. Contact the editorial office immediately if there is an

anticipated difficulty. One needs to read the letter to the editor or comments carefully as they may have asked a specific question about the manuscript. On initial review of the manuscript, one needs to consider whether one might be in conflict of interest with the authors, their institution, their funding sources and whether one can judge the article impartially. One needs to consider whether the topic seems to fit the scope of the journal and is likely to be of sufficient general interest for publication.

#### *Confidentiality*

Referees should treat the review process as being strictly confidential and should keep the following guidelines in mind. Manuscripts refereed should not be discussed with anyone. If colleagues are consulted, they should be identified to the editors. Similarly, if experts from outside the referee's own laboratory are consulted, referees should check with the editors beforehand to avoid involving anyone who may have been excluded by the editor. Referees should, as a rule, not disclose their identities to the authors or to other colleagues since they may be asked to comment on the criticisms of other referees and may then find it difficult to be objective. Should they feel strongly about making their identities known to the authors, they should do so via the editor. Any attempt by authors to determine the identities of referees or to confront them is strongly discouraged and journals encourage referees to neither confirm nor deny any speculation in this regard. Some journals have open-peer review which identifies the reviewers and includes their comments where others utilize double anonymity reviewing so neither reviewers nor authors know the others' identity. Pediatric Research uses single blinding, i.e. the authors do not know who the reviewers are.

#### *Ideal review report*

An initial paragraph is written that summarises the major findings and the referee's overall impressions, as well as highlighting major shortcomings of the manuscript. Specific numbered comments are added, which may be broken down into major and minor criticisms if appropriate (numbering facilitates both the editor's evaluation of the manuscript and the authors' rebuttal to the report).

The reviewers ideally highlight the importance and novelty of work, appropriateness of the materials, methods and experimental model systems, rigor of the experimental design including the inclusion of appropriate controls, quality of the data, and appropriateness of the statistical analysis. The report should answer the following questions: what are the major claims and how significant are they? are the claims novel and convincing? Are the claims appropriately discussed in the context of earlier literature? Who will be interested and why? Does the paper stand out in some way from the others in its field? Are there other experiments that would strengthen the paper?

When considering the rigor of interpretation of data, the reviewer checks if all possible interpretations considered and discussed including the limitations of study. The reviewer should comment on the value of the discussion and the validity of the conclusions drawn in the paper. Does the data support the conclusions? It is helpful to comment on the length of the paper

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and the writing quality, but reviewers are not responsible for providing detailed grammar and copy-editing feedback. Figures and Tables are checked for clarity, accuracy, and completeness. The introduction should be accurate and adequately frame the area of the research of the discussions of prior and related work of the citations to the literature.

#### *How Reviewers are assigned*

Reviewers are assigned by using resources such as Web of science, the Journal's internal database as well as personal contacts. It is usual to avoid suggested reviewers and this option, ie suggesting reviewers, is not offered in Pediatric Research. However, authors can opt to request that specific researchers do not review their manuscript and this request would be honored. Sometimes authors prefer not to share unpublished work with other experts competing in the same research area.

#### *Improving the manuscript*

The purpose of peer review is to enhance and advance scientific research and therefore improving the manuscript is a key goal for the reviewer, even if the paper does not reach priority for publication. Suggestions about how the clarity of the writing might be improved are helpful but it is the reviewer's choice about how much detail is included without necessarily going into specific details of spelling and grammar. Some of the following questions are useful: how might the manuscript be shortened? how to do the study justice without overselling the claims? how to represent earlier literature more fairly? how to improve the presentation of methodological detail so that the experiments can be reproduced? In addition, the submission of supplementary data on the *journal* web site to enhance the presentation. For example, supplemental material may include crystallographic information, source code for modelling studies, microarray data, detailed methods, mathematical derivations, long tables, and movies.

Most journals request additional confidential comments to the editor which might include: a definite recommendation regarding publication; an assessment of how much any suggested additional experiments would improve the manuscript, and of how difficult they would be to complete within a reasonable timeframe (1-2 months). Reviewers should not include recommendations for acceptance or publication in the comments to the author, only in confidential comments to the Editors. In cases where the manuscript is unacceptable in its present form, an opinion about whether the study is sufficiently promising can be used to encourage resubmission in the future.

#### *Manuscript decisions*

There are several decision options from Accept, Reject, Major Revision, and Minor Revision. Many journal editors aim to rapidly reject papers outside the scope of the journal to allow authors to submit the paper elsewhere in a timely manner. Pediatric Research utilizes a decision called Reject & Resubmit for manuscripts where additional data gathering or experimentation is needed, the editors may also determine that a new set of reviewers are needed on revised Reject & Resubmit papers, since the manuscript is treated as a new submission.

#### *Reviewing a revised document*

The journal recommends that authors detail their response to each and every one of the reviewers' comments, including any with which you disagree with and have not complied with in your revised version. We suggest to authors that the revised response to reviewers' comments should be included in a word document with a point-by-point response to reviewers' comments and if adding text to the manuscript the page number and line should be included as well as the added text. This should facilitate the reviewer rather than expecting them to look at several different versions of the original manuscript. The reviewing process is not adversarial but if authors do not make requested changes, they should provide a detailed explanation and referenced rationale. Unprofessional comments should be referred to the editor who can assist in framing the appropriate response.

#### *Rewards for reviewing:*

The expansion of journals has led to an increased pressure on reviewers. Therefore, several methods have been used to give credit for reviewing. Some journals have open peer reviewing in which the reviewers' comments and identity are published alongside the paper and single or double anonymity of reviewers is eliminated. The increased transparency is arguably more progressive and leads to greater accountability but also has more potential for nepotism and excludes reviewers concerned about promotion and the power paradigm. However, reviewers from open peer reviewed journals may be more timid and bland as both prominent researchers as well as early career investigator are concerned about reputational damage. This process may be biased in that reviewers who suggest rejection and have negative comments can withdraw from this process and therefore their reviews are not published. Published reviewers' comments are predominantly positive and only reflected in published articles and this transparency is lost for these papers that are rejected,

Web of Science is a free online resource that is multi-disciplinary and global and records outputs of publications and reviews. Web of Science tracks author publications, citation metrics, peer reviews, and journal editing. All one's publications are imported from *Web of Science*, ORCID, or one's bibliographic reference manager (e.g., EndNote or Mendeley). Journals follow the guidelines and best practice recommendations of the Committee on Publication Ethics (COPE) and the international Committee of Medical Journal Editors (ICMJE) including its recommended authorship criteria.

Now that you've read this how to article, roll up your sleeves!! Just let the Pediatric Research Editorial Office know you'd like to join the reviewers' pool and we'll take it from there!

#### **References**

##### **Other Peer Review Guidelines**

- [Peer Review: The Nuts and Bolts](#) by Sense About Science (SAS)
- [Peer review: An Introduction and Guide](#), PRC
- [COPE's Ethical guidelines for reviewers](#)
- [Wiley's Best Practice Guidelines on Publishing Ethics](#)
- [A Guide to Peer Review in Ecology and Evolution](#), British Ecological Society
- [Alan Meier's guidelines for reviewing technical papers](#)
- The Council of Science Editors (CSE) [gives guidelines on roles and responsibilities in peer review](#)
- [Reviewing Journal Manuscripts](#), by Charon Pierson
- Pros and cons of open peer review. *Nat Neurosci* **2**, 197–198 (1999). <https://doi.org/10.1038/6295>
- Shoham N et al., 2021. Open versus blind peer review: Is anonymity better than transparency? *BJPSych advances*, 27 (4), 247-254.

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#### **COMPETING INTERESTS**

The authors declare no competing interests.