

EDITORIAL

Peer Reviewing for the *Journal of the American Board of Family Medicine*: What Does It Take?

In a previous article, we described an overview of the peer review process of the *JABFM* editorial office.¹ Peer reviewing is most often learned “on the job” without formal training. Reviewers occasionally ask for clarification about the biomedical publishing process and what editors expect from reviewers. Here we provide more detail about the *JABFM* peer review policies and procedures, outline the ethics of peer review, and discuss the qualities of a good peer review.

Who Are Peer Reviewers and What Do They Do?

Each new manuscript submission is assigned to an editor for initial inspection (internal peer review). The editor identifies potential external peer reviewers for those papers that appear to have publication potential. A panel of reviewers with diversity in background and perspective, and expertise in some aspect of the paper is most desirable to identify its strengths and weaknesses. For example, an academic with expertise in the research methods used in the study, an experienced clinician, and an expert in the content area of the article are likely to review the submission from different viewpoints. These peer reviewers are asked to read an assigned manuscript and provide a written opinion to the editor about the suitability of the article for publication based on its quality, novelty, and relevance to the *JABFM*.

Peer reviewers also are expected to make suggestions to assist the authors in improving the article. Reviewers are asked to comment on those areas within their domain of expertise, as well as general concerns such as the clarity and quality of

the writing, the validity of the approach and whether the article provides new information.

Ethical Guidelines for Journal Peer Reviewers

When an individual accepts a peer reviewing assignment, there is an implicit agreement to adhere to the ethical standards that are commonly accepted in biomedical publishing. Peer reviewers should be aware of the ethical guidelines for reviewers, authors, and editors that are outlined in the *Uniform Requirements for Manuscripts Submitted to Biomedical Journals*.² Reviewers for the *JABFM* are expected to agree to the following.

- Produce a thoughtful, objective review.
- Meet the agreed upon deadline.
- Consider with an open mind innovations or approaches different from those of one’s own.
- Provide a balanced critique that also identifies both the strengths and areas for improvement in each manuscript without being overly critical on minor items.
- Avoid scientific misconduct such as the misappropriation of intellectual property. Treat the manuscript as a confidential document and respect the privacy of the authors’ ideas.
- Direct ethical comments and concerns confidentially to the editors. Do not contact an author with questions about the manuscript; include these in the written critique.
- Declare whether the review was a joint effort and give credit to any collaborator.
- Declare any competing or conflicts of interest (real or perceived).³ Not every potential conflict necessitates a recusal. Reviewers are encouraged to discuss potential conflicts with the editors if they believe they can provide a fair review.

The following conflicts are often grounds for rejecting an assignment.

- Financial interests (eg, paid consultancies, stock holdings)

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- Significant professional relationships or rivalries
- Personal relationships
- Antipathy toward study question/approach; commitment to particular paradigm
- Political or special interest affiliations; religious or deep convictions conflictual with manuscript subject

How to Be a Valued Peer Reviewer

The *JABFM* recognizes and values the important service that reviewers provide to the *Journal*, to the submitting authors, and to readers. The following is a listing of what we find most useful from peer reviewers.

1. Respond to a Request to Review

Potential reviewers are sent an E-mail inquiry about their availability and interest in reviewing. This message contains the manuscript title, abstract, and assignment deadline. The review process is expedited when these invitations are quickly accepted or declined. It is acceptable to propose an extended deadline when the given deadline (usually 4 weeks from the invitation date) cannot be met.

The individuals whom we invite to review usually have extensive experience as faculty members, researchers, and published authors. With this wealth of knowledge, such experts can usually write valuable critiques and make pertinent recommendations to the editors. Sometimes reviewers decline an invitation because the manuscript is not within their specialty area. We encourage such potential reviewers to consider the assignment if they can make a contribution to some aspect of the paper. For example, some reviewers are selected specifically to provide a general review of the paper, such as its pertinence, applicability, and accessibility to the practicing family physician rather than as an expert on the specific topic of the paper.

2. Write a Helpful Peer Review

A review is most helpful if it addresses the concerns of editors and authors. Editors are seeking insightful comments about the importance of the work, suggestions that improve the work, and the probability that it can be made suitable for publication. Authors can develop as biomedical researchers if they receive a comprehensive critique that acknowledges both the strengths and limitations of their work.

Start with an Overview

Begin the written review with a brief summary of the article. A few sentences describing the purpose, approach, and findings of the study can clarify the reviewer's thoughts on the main thrust of the article, providing a context in relationship to other literature the reviewer may have read that the editor has not. This articulation of the overview of the manuscript may also help the reviewer formulate the critique. An overall impression of the strengths and limitations of the paper is also helpful.

Write an Organized Critique

Write an organized detailed critique of the manuscript that follows the chronology of the manuscript. Number each comment; this helps the authors respond to the critique and simplifies the work for the editor as well. Refer to page numbers and specific paragraphs in the text (eg, "page 5, first paragraph, last sentence: . . ."). Do not submit handwritten reviews. Do not focus on line or copyediting but do comment on the quality of the writing as needed. Although specific editing suggestions are welcome, such as ones that clarify confusing sentences, the focus of the review should be on the scientific and conceptual issues. Editing or comments on the body of the manuscript are not encouraged, as these create work in the editorial office and are often unreadable and difficult to communicate to authors. Please place all comments in the written review.

3. Make an Honest Assessment of Strengths and Weaknesses

We value reviewer opinion on the strengths and weakness of the following aspects of the manuscript:

- Literature review is up-to-date.
- Methods align with study purpose or research questions.
- Methods described in sufficient detail.
- Research design or study approach is adequate.
- Research was properly executed.
- Approach to data analysis is appropriate.
- Thoughtful consideration given to the study limitations.
- Manuscript provides new information that is likely to be of interest to our readers.

4. Improvement Is Possible

Reviewers should suggest ways to make the manuscript more complete, relevant, or useful. Identify the problems or defects that can be corrected, such as:

- Too many tables or a redundancy in the text with the tables.
- Illustrating data with figures when a tabular presentation of data would be more informative.
- Conclusions that exaggerate or do not reflect the main findings.
- Conclusion that fails to provide a “take-home” message for the *JABFM* target audience. What is the importance of the manuscript to primary care researchers or clinicians?

5. Commonly Overlooked Areas

Commonly overlooked areas that are very important to the quality of the article and to the quality of the journal include:

Title

The title of an article should be a hook to attract reader interest. Many manuscripts have bland, broad or uninformative titles. Suggestions for enticing descriptive titles are welcome.

Abstract

Careful scrutiny is needed to determine that the abstract is a good representation of the article. The abstract is critical because it represents the article in the bibliographic databases and is usually the first or only section of the manuscript that is read. Authors may forget to revise their abstract to reflect their final draft or not think adequately about a clinical reader’s needs. It is especially helpful to distinguish between clinical and statistical significance; some manuscripts with large numbers of subjects may have statistical significance with minimal clinical importance. Conclusions should be specific to the findings in the particular study and should not just call for additional research.

Numbers and Tables

Numbers and percentages should add up. Everyone should be accounted for; eg, the numbers of participants, exclusions, refusals, and unable to locate should add up to the total number in the sampling frame of potentially eligible participants. Numbers in the text agree with those in the tables.

References

The reference list should include recent publications reflecting current work in the field. We also like to know if important references are missing. For internet-based citations, does the URL still work? Some of our highly prized peer reviewers will conduct their own literature searches to make these determinations!

Reviewers Advise Editors

Reviews are submitted via the *JABFM* Rapid Review manuscript management system (www.jabfm.org). The Review Form has a box for the review to be pasted in (or a file can be attached), and a separate area for confidential comments to the editor. Table 1 shows the questions on the Review Form that must be answered with a drop-down menu of response alternatives before the review can be submitted; these are not a substitute for a written review. The reviewer’s answers to these questions are hidden from the author.

The box for confidential comments is optional, although we welcome additional comments about the disposition and utility of the manuscript. Ethical concerns should be placed in the confidential comment box as well. These may be concerns about conflict of interest, scientific misconduct, appropriate authorship, the funding source and role of the sponsor, or the informed consent process. We are also keen to know whether the work may have been previously published (eg, redundant publication, “salami” publication, or plagiarism).

Table 1. Required Questions on the *JABFM* Review Form

1. Is the material original?*
2. Are the data valid?*
3. Does the abstract appropriately reflect the manuscript?*
4. Are the conclusions in the abstract and the body of the manuscript reasonable?*
5. Is the article important to readers?*
6. Are the figures and tables adequate?*
7. Is a statistical review needed?†
8. If accepted, should there be an accompanying editorial?†
9. If yes to question eight, are you willing to write the editorial, or could you suggest someone to do so?†

* Response alternative: please indicate your ranking with 5 being highest.

† Response alternative: yes or no.

Editor Evaluates Reviews

Each peer review is rated by the editor assigned to the manuscript and stored with the reviewer's profile in the Rapid Review reviewer database. This rating becomes part of the reviewing history of each peer reviewer, and can be viewed by the editors as they select potential reviewers for future manuscripts. The reviewer database also contains information on the reviewers' areas of expertise; the number of previous invitations to review and number accepted; dates of submitted reviews, and days taken to produce reviews. Reviewers who consistently decline invitations or who write brief unhelpful reviews are eventually removed from the database.

Editor Makes the Decision

The assigned editor makes a decision about the manuscript (accept, invite a revision, or reject) based on a consideration of all the reviewer comments, her own critique, and other external factors. These other factors include whether the article fits into the *Journal's* niche, whether a similar article was recently published, the number of accepted articles awaiting publication, and the potential impact of the article. Editors may consult with each other when making the decision. Peer reviewers usually receive a copy of the decision letter with the review appended.

Post-publication Peer Review

After an article is published, the peer review process continues with critical appraisal by readers. Rapid responses posted on the *Journal* website can only be submitted with the "Reader Response" portal; these remain on the site for 60 days. We also welcome correspondence in the form of "letters to the editor," which must be submitted via the author portal. Letters to the editor are included in the *Journal's* on-line and print editions and are indexed in MEDLINE.

Resources for Reviewer Development

Many resources for peer reviewing exist, and reviewers are encouraged to be familiar with general peer reviewing guidelines and basic expectations of authors.² Participating in local "journal clubs" is a useful professional development activity that will likely sharpen critical appraisal skills. Roberts et al⁴ provide a comprehensive outline of issues to con-

sider for research reports that follow the IMRAD format (Introduction, Methods, Results, and Discussion); not every listed item will apply to each manuscript, but this checklist can help the reviewer identify important issues to consider.

Reviewers should familiarize themselves with the *JABFM* "Instructions for Authors," (<http://www.jabfm.org/misc/ifora.shtml>), which lists several useful resources. For case reports, see the characteristics of cases suitable for publication, and the checklist of "content for a case report" provided by McCarthy and Reilly.⁵ Review articles should use SORT (Strength of Recommendation Taxonomy) to grade diagnostic and treatment recommendations.⁶ Randomized controlled trials should be organized according to CONSORT (Consolidated Standards of Reporting Trials) guidelines.^{7,8} Meta-analyses should follow the QUOROM statement.⁹

Benefits of Peer Reviewing

Writing a peer review is a substantial time commitment but is not altogether an altruistic activity. Reviewing is useful for improving critical thinking and manuscript-writing skills. Reviewers seeking to publish their own work will gain useful experience with the biomedical publishing process. Journal peer reviewing is also a well-recognized form of service on the national level. Some reviewers ask journal editors for letters of recommendation for academic promotion.

How to Become a Peer Reviewer

The *JABFM* seeks reviewers who are experienced in research or primary care clinical practice. Having a publication record and familiarity with the peer review process from the author's perspective is an advantage as well. Members of underrepresented groups are particularly encouraged to participate. To volunteer as a peer reviewer for the *JABFM*, please download the Peer Reviewer Form, and E-mail the completed form to jabfm@med.wayne.edu.

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References

1. Neale AV, Bowman MA. Peer review process of the *Journal of the American Board of Family Medicine*. *J Am Board Fam Med* 2006;19:209–10.
2. International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to

- biomedical journals. Available from: www.icmje.org. Accessed on August 3, 2006.
3. Neale AV, Schwartz KL, Bowman MA. Conflict of interest: can we minimize its influence in the biomedical literature? *J Am Board Fam Pract* 2005;18:411–3.
 4. Roberts LW, Coverdale J, Edenharder K, Louie A. How to review a manuscript: a “down-to-earth” approach. *Acad Psychiatry* 2004;28:81–7.
 5. McCarthy LH, Reilly REH. How to write a case report. *Fam Med* 2000;32:190–5.
 6. Ebell MH, Siwek J, Weiss BD, et al. Strength of Recommendation Taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *J Am Board Fam Pract* 2004;17:59–67.
 7. Moher D, Schulz KF, Altman, DG. The CONSORT Statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. *Ann Intern Med* 2001;134:657–62.
 8. Piaggio G, Elbourne DR, Altman DG, Popock SJ, Evans SJ, CONSORT Group. Reporting of non-inferiority and equivalence randomized trials: an extension of the CONSORT statement. *JAMA* 2006; 295:1152–60.
 9. Moher D, Cook DJ, Eastwood S, Olkin I, Rennie D, Stroup DF. Improving the quality of reports of meta-analyses of randomized controlled trials: the QUOROM statement. Quality of reporting of meta-analyses. *Lancet* 1999;354:1896–900.