Peer Review Process, Editorial Decisions, and Manuscript Resubmission: A Reference for Novice Researchers

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fter several weeks of waiting for a journal's decision on their submitted manuscript, some authors may be surprised when they are asked to make substantial revisions to their manuscript or when their manuscript is rejected. After all, by the time an author has submitted a manuscript to a journal, he or she has likely spent a good amount of time writing the manuscript, identifying an appropriate journal, and preparing the research to meet the journal's submission requirements. A decision of revise or reject is not necessarily the end of the road for a given manuscript, however. In fact, most manuscripts require revision after initial review. Although approximately 50% of manuscript submissions are ultimately rejected, many can be submitted to other journals.1

In scholarly publishing—whether for medical publications such as *The Journal of the American Osteopathic Association (JAOA)* or for humanities or social science research—the peer review process is the standard for assessing the quality of a manuscript and plays a large role in a journal's editorial decisions. To fully comprehend a journal's decision, authors need to understand the process behind that decision. In the present article, the sixth in our series on scientific writing, ²⁻⁶ I elucidate the peer review process and its outcomes and provide information regarding what actions authors should—and should not—take once a decision is reached.

An Editor's Decision To Have a Manuscript Reviewed

Not all manuscripts undergo peer review. An editor may opt to skip this process for a number of reasons, but for any scientific publication, "Two major criteria are central to the evaluation of manuscripts submitted for publication: importance and quality."^{7(p303)} For importance, the editor

evaluates a submission for scientific advancement, clinical relevance, new information, and interest to the journal's readers. For quality, the editor considers the suitability and rigorousness of the methods, data analysis processes, appropriateness of the conclusions, and quality of writing. If importance and quality expectations are not met, a manuscript will be rejected before peer evaluation. The editor may also reject a manuscript on the basis of editorial priority and the value of the submitted manuscript vs other manuscripts under review. As noted in the *AMA Manual of Style*, "The reality of limited space may also be a consideration... Cyberspace may appear infinite, but the attention span and patience of readers are not." (p.303)

In essence, if a manuscript does not fit with the scope of the journal, or if it is submitted in an unsuitable form, it will likely be rejected without evaluation. If a manuscript meets the basic criteria, however, it will move forward to the peer review process.

The Peer Review Process

As subject matter experts, peer reviewers are recruited to assess the importance and quality of a particular manuscript, and they typically do so on a volunteer basis. Although authors can often suggest reviewers, reviewer selection is ultimately made by a journal's editorial leadership.7 Reviewers may be selected from an editorial board, a database of researchers, or persons who have already published research on a similar topic.1 Using a given journal's standardized peer review form as a guide specific to the journal's requirements,8 peer reviewers identify strengths and weaknesses, make suggestions for improvement, and provide recommendations to the editor.⁷ The process can take 4 to 6 weeks, ¹ although some journals (including the JAOA) provide rapid reviews for high-priority topics.

Just as authors must disclose financial relationships and conflicts of interest, reviewers have a responsibility to inform the journal editors of any such relationship or conflict.⁸ Likewise, reviewers are trusted to "treat a manuscript they are reviewing confidentially and refrain from sharing it with anyone, even close colleagues or trusted students." Sharing manuscripts under review can lead to dissemination of errors, unsolicited commentary, and use of information for personal advantage.⁹

Why Peer Review?

Many criticisms of the standard peer review process exist. For example, the single-blind review process (used by the *JAOA* and many other journals), in which the reviewers are made anonymous to the authors but the authors are provided to the reviewers, has been criticized for allowing the potential for favoritism or prejudice on the basis of the authors' names, publication history, and reputation. According to Booth, however, the data to support such claims do not exist.

In addition, the peer review process is sometimes questioned in light of studies that have been retracted. Perhaps the most infamous example is *The Lancet*'s 2010 retraction of a 1998 article that linked autism to the measles, mumps, rubella vaccine. ¹⁰ More recently, the journal *Science* has come under scrutiny for an article on measuring changes in support for gay marriage through conversations with gay rights canvassers. ¹¹ Several concerns regarding the study ¹² led such popular media outlets as *The New York Times* ¹³ and *The New Yorker* ¹⁴ to challenge the scientific community to improve scientific evaluation before research publication and dissemination.

However, as noted by Booth, "Despite its shortcomings, peer review is regarded by the scientific community as an essential component to high-quality, effective communication that further advances science." For the osteopathic medical profession, which has low research activity and impact compared with other health care professions, beer review is one important avenue for the ultimate dissemination of quality projects that advance the profession.

Editorial Decisions

After the peer review process is completed (typically after 2 or more reviews have been executed), the editor considers the reviews and determines whether to accept or reject the manuscript or request revisions.^{1,7} Accepted manuscripts will be scheduled and edited according to the editorial priorities of the journal. However, few manuscripts are outright accepted; most require revisions.¹

Revise

In the decision letter, the editor provides recommendations regarding how to improve a manuscript along with the peer reviewers' comments.⁷ It is not uncommon for reviewers to disagree and for authors to receive sometimes conflicting feedback. In such cases, editors will identify the comments that the authors should address when revising their manuscript.

Revision requests can be minor or major. In either case, the author has an opportunity to improve the manuscript and submit the revision for consideration. Generally, authors are asked to "submit a list of revisions completed and the reasons for any suggested revisions not undertaken"7(p308) when resubmitting a manuscript. The JAOA, for example, requires that authors use the Track Changes feature in Microsoft Word when revising manuscripts, that a point-by-point response is provided for each reviewer's comments, and that a cover letter is submitted. When responding to reviewers' comments, authors can take several steps to increase the chances of manuscript acceptance after resubmission. Annesley16 outlined 10 tips for authors, which are highlighted in the Table.

Revised manuscripts may be reevaluated by reviewers (as is often the case with the *JAOA*) to ensure that all major concerns have been addressed. Thus, it is important for authors to recognize that a journal's request for revision does not guarantee ultimate acceptance.⁷

Table. Tips for Authors in Responding to Peer Reviewer Feedback¹⁵

Tip		Additional Guidance
1.	Get mad. Then get over it.	Although criticisms can sting, realize that most scientific manuscripts require revisions. Vent to a colleague, and then get over it before taking any future action.
2.	Consider what the editor's decision letter really says.	If your manuscript has been rejected, accept the decision and consider another a journal. If major revisions were requested, consider whether you can adequately address the reviewers' concerns, and be prepared for potential rejection or additional requested revisions after resubmission. If minor revisions are needed, address the concerns and promptly resubmit the manuscript.
3.	Wait and gather your thoughts.	Take at least a day to process the decision letter and feedback before moving forward.
4.	Even if the reviewer is wrong, it does not mean you are right.	Perhaps the reviewer missed or misunderstood something in the manuscript. Rather than explain why the reviewer is wrong, consider what you can do to provide clarity in the manuscript.
5.	Choose your battles wisely.	Most authors will be asked to make numerous changes. If you believe a requested change is erroneous or will diminish the quality of your manuscript, it is appropriate to respectfully disagree. However, if a request will not alter your intended meaning, make the change.
6.	Do not pit one reviewer against another.	Never respond to a criticism by arguing that the other reviewer did not find fault with a particular part of a manuscript. Respond to each reviewer as if he or she was the only reviewer.
7.	Be grateful for the reviewers' and editors' time.	Most reviewers are volunteers who are merely pointing out ways to improve a manuscript. Thank them for their time and for their feedback—both negative and positive.
8.	Restate the reviewer's or editor's comment when responding.	Copy the reviewer's exact comment into the document; likewise, copy the exact edits made from the revised manuscript. These steps make the re-evaluation process easier and faster.
9.	Be prepared to cut text.	Journals are expensive and space is limited. The editor may ask that text or graphic elements be deleted or published online only.
10.	Do not submit the same version to another journal.	Reviewers at the next journal are likely to find the same flaws. Thus, take advantage of the feedback received and revise your manuscript accordingly.

Reject

A manuscript can be rejected for a number of reasons. As previously described, it may be rejected outright because it does not fit the scope of the journal. Alternatively, the reviewers may identify serious methodologic flaws that cannot be corrected with a revision, or the manuscript may simply not be deemed a high enough priority for publication (eg, is similar to other studies recently published, does not add substantially to the existing literature). Authors should be aware that "reviewer ratings are not averaged; often, a single cogent negative review leads to rejection of a manuscript." (8(p73))

Appealing a Rejection

Some journals have policies that all rejections are final, whereas others (including the *JAOA*) may consider arguments of the authors. If an appeal policy is not available on the journal's website and the author decides to appeal a rejection, he or she should direct the appeal and any complaints (eg, quality of the reviews) to the editor of the journal. For an appeal to be taken seriously by the editor, the author must make a "convincing case to the editor that the reviewers seriously misjudged [the] manuscript." It is never acceptable to berate or insult the editor or reviewers, demand decision reversal, or accuse the editors of bias. Such reactions are likely to get the authors banned from the journal or, at the very least, lead to a bad reputation.

Day and Gastel¹ recommend that authors consider the reviewers' comments carefully. If the manuscript has serious flaws, it is best to not resubmit the manuscript elsewhere, as doing so could damage an author's reputation.¹ However, "If the work was deemed competent but not of high enough priority, [the author should] take advantage of any useful suggestions from the reviewers, and promptly submit the manuscript to another journal." ¹(p133)

Conclusion

Peer review is the standard method for evaluating the quality and value of scientific research. Reviewers' comments should be seriously considered by authors before manuscripts are revised and resubmitted and before appeals for reconsideration of rejection are made. (doi:10.7556/jaoa.2015.114)

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