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Effective Manuscript Reviewing: An Often Thankless, but Vital Role

In the June 2024 issues of *JCEP*, I provided a personal account of my struggles toward improving my writing skills for effective manuscript submissions. Along that same theme, I am now providing my thoughts about what makes an effective and useful manuscript review. Peer review of a manuscript for scientific and medical journals is a vital function of the scientific process. From specific aim elucidation to effective protocol development and implementation to proper statistical design and evaluation to manuscript writing and submission, many provide input into each research paper. However, it is the reviewer and editorial board of a journal who must be adequately impressed for your manuscript to be accepted for publication.

The goal of the scientific peer review is to provide constructive feedback to the study team to polish their writing and potentially ask them to provide clarifying information. To provide this type of feedback, the person performing the review should have a process of manuscript evaluation. As with my June 2024 editorial in which I mentioned important people who provided great feedback to me on writing a manuscript, Clinton Brawner, PhD, is a person that I see as an expert in providing peer review responses. He was kind enough to share with me his process for reviewing a manuscript which are as follows:

- (a) I tackle a review with the purpose of making the manuscript better and to guide the editor on which papers are worthy of publication for the given journal.
- (b) As a reviewer, I am going to spend up to 2 hours reading and commenting on a manuscript.
- (c) I look to see that the introduction is focused on the development of the importance of the study to inform the reader. Any in-depth review of the literature should occur in the discussion, so the introduction should be succinct, to the point, and should end with a concise hypothesis or purpose statement.
- (d) I evaluate if the authors have described the methods sufficiently that the reader could repeat them. The methods section should begin by describing the study design.
- (e) I am a stickler for assessing for significant digits. The data should be reported to the level that it is measured and is relevant. For instance, heart rate and blood pressure are measured to the whole number. It makes no sense to report the mean of these data to the tenth.

- (f) I look to ensure that the paper does not overinterpret *P* values. *P* values that do not meet the defined level of significance (i.e., α level) should not be considered significant, and very low *P* values (e.g., $P < 0.0001$) are not “more significant.”
- (g) All papers should clearly define a primary outcome.
- (h) Pilot, feasibility, or exploratory studies are important. When I review these types of studies (or any study), I assess whether the authors clearly stated the study design and purpose, and if the conclusions are limited to the scope of the study. Some authors provide speculative conclusions that are not supported by their results or the literature they reviewed.
- (i) In my comments to authors, I attempt to convey that I have read the study and understand it. This is done with a very brief synopsis of the purpose and results/conclusion of the study. I then provide in numbered format my suggestions and questions for which the author group to respond. I attempt to guide them to the location of each item within their manuscript by providing the page and line numbers.
- (j) I may suggest corrections to wording based on meaning, and I also may point out minor grammatical issues such as tense and spelling, but I hesitate to provide suggestions when a paper is poorly written. I also might suggest to the editor that the writing group invite someone whose first language is English if I sense this is necessary.

The least helpful reviews are those that simply state, “This manuscript is acceptable,” or, “This is a great paper,” and does not provide any other information. It is rare that a submission, in some manner, does not lead to questions about its presentation.

Finally, I would be remiss if I did not comment on the proliferation of *predatory journals*. These are journals that often reach out for manuscript submissions with a very short deadline. They typically do not have clear policies on peer review. If you are asked to review for any journal, you may want to ensure the journal has developed these types of policies regarding peer review.

In my next editorial, I will provide my thoughts on how to adequately respond to any level of manuscript review with the aim to satisfy the reviewer, leading to publication of your manuscript.