



From Referee to Reviewer: The Evolution and Impact of Peer Review in Scientific Publications

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Peer review is the backbone for high-quality scientific research and for sharing collective knowledge in the world of science. Research manuscripts undergo a meticulous review by experts in the field to ensure that only valid and robust works are published. In today's vast ocean of information, this process is similar to differentiating a shiny pearl from ordinary pebbles.

Historical Evolution of Peer Review

The foundation of peer reviewing dates back to the 18th century when a need to seek expert opinions for the evaluation of manuscripts arose. The concept was then called the "referee system." These referees acted as a consultant to the editor without judging or assessing the truth of the outcomes. Only the chief editor or a small group of editors made the decisions over the publications. With the growth in scientific journals and the number of publications, the quality of research papers has become a matter of concern, and handling a massive number of papers became an enormous task. Evaluating stacks of manuscripts was time-consuming for some editorial staff. To meet the growing need for assistance, journal editorial boards began seeking opinions from external experts' opinions (Spier, 2002; Baldwin, 2020; Clarke, 2016).

During mid 20th century, the concept of "referee" evolved into "peer reviewer," which has altered the idea to involve only selected experts assessing the quality of the papers. Now, they have become "gatekeepers," carefully evaluating every manuscript with the same level of expertise and thoroughness as a fellow researcher within that specific field. Includ-

ing peer review in the publication process has now become essential, like the heart of the scientific publishing process, rather than being just an optional step. Journals without a peer-reviewing system have been considered untrustworthy, which made it difficult for them to attract both scientists and readers (Baldwin, 2020).

The Modern Peer Review

Millions of manuscripts are submitted to numerous academic journals each year. In 2022, there were 5.14 million academic articles published (Talbot, 2023). In this landscape, peer review acts as a filter to distinguish a reliable work from a study with inaccuracies and methodological flaws. The valuable constructive feedback provided by the peer reviewers serves as a guiding force for authors, enabling them to comprehensively grasp the specific areas that require enhancement. This feedback simultaneously strengthens the clarity of the manuscript and advances a more eminent final product. Additionally, knowing that their work will be examined by peers, authors often approach their research with diligence, paying more attention to ethical issues and proper citation, which is another advantage—avoiding plagiarism and misconduct. As a result, the readers receive a better and more credible product.

Challenges and Criticisms

On the other hand, some worries and criticism of peer review have emerged. These limitations need to be addressed in order to improve the ongoing practice of peer review. It is undeniable that at times, peer review can take a long time due to extensive assessment, revisions, and correspondence between authors and reviewers. This can subsequently result in publication delays. Another important concern

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is the possibility of biases raised by reviewers. Personal preferences, prior beliefs, or even subconscious ideas can influence the final decision of the reviewers. Sometimes a valuable study with a negative outcome can be neglected due to the tendency of the reviewer to accept a study with more positive results—publication bias—which threatens the impartiality and quality of the publication. Lastly, it is noteworthy to mention that many reviewers are volunteers who dedicate their personal time to evaluating numerous manuscripts. This heavy workload can impact the quality and consistency of their reviews. It is important to establish transparent and rigorous evaluation standards to address all these issues. The peer review process undoubtedly has a significant impact on scientific publications, and it is fundamental for a high-quality product (Haffar et al., 2019; Manchikanti et al., 2015).

The Future of Peer Review

The world of academic publishing is constantly progressing, and the process of peer review is evolving with it. There have been discussions on how to improve the efficiency of peer review. One improvement is to have an open peer review system: disclosing the reviewer's comments to the public. With immense pleasure, we declare that our journal has stepped forward to publish the peer-review communication together with the manuscript. We believe that this open peer review strategy will promote transparency and accountability. Making the comments of the reviewers and the responses of the authors accessible will provide more insight into the considerations and discussions that play a significant role in determining the final format of a study. This will lead the authors and reviewers to enhance the quality of their manuscripts.

Peer Review Process in PPCR Journal

Upon submitting their manuscripts through the journal's online portal, accompanied by all required documents from the provided checklist, authors immediately receive a confirmation email acknowledging the receipt of their materials. In the initial phase, the editorial team thoroughly assesses the manuscript for alignment with the journal's prescribed guidelines, actively inspecting for any ethical discrepancies or instances of plagiarism. Concurrently, the editor-in-chief undertakes a pivotal evaluation, discerning if the submission not only aligns with the journal's philosophy but also possesses the potential to captivate our readers and need expert opinion.

If the manuscript is deemed appropriate, it will undergo a single-blinded peer review journey.

Here, the editor-in-chief assigns expert reviewers to rigorously evaluate the manuscript's depth, safety, and overall quality. These reviewers, equipped with their knowledge and skills, may opt to:

- Accept the manuscript in its current form.
- Request revisions—either minor or major.
- Reject the submission, explaining their reasons.

Their comprehensive feedback is then conveyed back to the authors, allowing them the opportunity to address any critiques or suggestions. Post revisions, the manuscript is re-evaluated, and reviewers determine its readiness for publication. After approval, the journal's team of dedicated copyeditors refine the content to ensure that it is ready for publication. The copyediting step includes formatting and publishing a detailed document with the communication exchanged between authors and peer-reviewers, proving a point-by-point answer to the reviewers' comments.

Recognizing our Peer Reviewers

The Principles and Practice of Clinical Research Journal have achieved its respected reputation and academic standing due to a passionate group of individuals who generously devote their precious time: our distinguished peer reviewers.

On behalf of the editorial board, we express our sincere gratitude to these invaluable reviewers for their exceptional work. In honoring their contribution, we present the names of our reviewers, who have diligently reviewed the articles since the beginning of 2022, including 40 published articles.

To each of our esteemed reviewers, your dedication and expertise have played an instrumental role to maintain the high standards of our publication. We are extremely proud and grateful for your significant contribution to the scientific community:

Adriana Montalvan, Aimee Mercado, Aishha Aladab, Alberto Castro Alessandra Carvalho, Alvino Maestri, Amanda Marcinowska, Amanda Siqueira, Amaro Medina, Augusto J Mendes, Aurore Thibaut, Bryan Monterroso Yancor, Caio Kasai, Camila Awad, Camila Crovador, Carlos Rossetti, Cassia Righy, Cecilia Sousa, Celso Vespasiano, Cristina Bothou, Daniel Menezes, Daniela Rodriguez, Daniela Garcia, Daniela Lamas, Danielle Silva, David Coelho, Do Kim, Edmundo Inga-Zapata, Emmanuel Gonzalez, Enrico Suriano, Enzo Billy Vera Chavez, Erica Stelmaszewski, Eva Batista, Frans Serpa, Gabriel Rangel Olvera, Gabriel Vallejos, Gabriela Mateo, Gerardo Guinto, Gilmar Osmundo, Giorgia Corridori, Giovani Farina, Gloria P. Rodriguez-Gomez, Guil-

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Conflicts of Interest

The authors declare no conflict of interest.

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