EDITORIAL

Peer review: An essential component of scientific publications

Peer review is an essential component of scientific publication. It is defined as a process of subjecting an author's scholarly work, research, or ideas to the scrutiny of others who are experts in the same field.[1] Its purpose is to improve the manuscript and help the editors make an informed decision. It has been said that "a reviewer's job is to see what the authors have not seen."

The history of peer review can be traced back to the ancient Greek era. However, the peer review was first described by a Syrian physician, Ishaq bin Ali al-Rahwi (CE 854–931) in a book called Ethics of the Physicians.[2] Later, the Philosophical Transactions of the Royal Society formalized the peer review process in 1665. Four types of pre-publication peer review are being practiced, but none is ideal for all situations.[3]

1. **Double anonymized:** Reviewers and authors do not know each other's identities.

2. **Single anonymized:** Authors do not know the identity of the reviewer(s).

3. **Open peer review:** Authors and reviewers know each other's identities during and after the review process.

4. **Transparent peer review:** Review reports are posted with the published articles. However, the reviewers can have their choice of identity disclosure.

The peer review needs relevant professional expertise and time to read the manuscripts critically. Therefore, many experienced reviewers are reluctant to accept the review requests. On the other hand, many young reviewers need help to grow as professional reviewers. They need help. Although most journals have guidelines for the reviewers, I have compiled a few tips for their ready reference.

How to write the peer review:

There are guidelines on how to do a manuscript review.[4] Additionally, there are ethical guidelines for the reviewers to follow.[5] I suggest a few cardinal points for the young reviewers.

The review should include:

1. **Overview:** A distilled summary of the manuscript in three to four sentences should be given here. This is the most difficult part of writing the peer review and is labeled as a "litmus test" for the reviewers. It should be followed by a description of its relevance to the population in which the study was done and its importance in the context of current knowledge. An overall impression of the originality and scholarly writing, positive or negative, should be given here. Thereafter, a detailed comment should be given:

2. **Major points:** Specific comments/ observations on study design, weaknesses, data analysis (especially the adjustment for confounding variables and validity of the findings), presentation, and interpretation. One important point is to see whether the conclusion is supported by the data and matches the study's objective. Any known concern of ethical violations, duplicate publication, or fabricated or falsified works should be pointed out. If possible, plagiarism should be checked, although the editorial office should do it routinely.

3. **Minor points:** Minor points, as opposed to the major, are those that have no influence on the conclusion drawn by the study. These may include items like some technical clarifications on how the method works, data presentation, missing references (but depending on what is missing, this could also be a major issue), typos, and grammar.

4. **Recommendation:** An unambiguous recommendation to the editors for making informed decisions should be given. Many journals have their drop-down to be selected by the reviewers.

While writing the comments, the sections/ components of the papers (as appropriate) should be kept in mind:

title, abstract, introduction, methods, results, discussion, conclusion, and references. The comment should refer to the page and line numbers of the manuscript. The following points should be noted by the reviewers:

1. Be professional and respectful to the authors. Keep in mind that all reviewers are authors, too.

2. Suggest specific points for improvements rather than giving general advice.

3. Focus on the scientific points rather than editorial and proofreading points such as grammar, spelling, and punctuation. Add an overall comment if there are many such problems.

4. Make a timely submission to show respect to the journal and the authors. The reviewer's delay slows down the publications.

5. Be realistic in suggesting changes. Do not suggest additional experiments or data collection.

6. Number the comments sequentially so the authors can easily submit a point-by-point response.

7. Do not use the file to comment using track mode. It will be very cumbersome for the authors to frame their point-by-point responses, especially if there are multiple reviewers.

8. Declare your conflict of interest and limitations, if any.

Challenges for getting quality reviews:

The acceptance rate of the review requests from the editor is very low, less than 10% for the BSMMU Journal. Very often, the editorial office gets sub-standard peer review comments. Some reviewers do not submit the review, even after accepting the request. Perhaps the reviewers need orientation. The mere presence of review guidelines, which most journals have, does not necessarily ensure a good quality review.

There are arguments that review should not be done free of charge. Many journals offer limited free access to the journal and discounted article processing charges to the reviewers' manuscript. However, this offer comes after the review is completed. Therefore, it does not constitute an inducement that might invite ethical concerns. We all recognize that the growth of science partially depends on the reviewers' contributions. Their help is essential. I would like to say that the *Zakat* (a form of almsgiving) of the acquired knowledge is to do peer reviews free of charge.

Peer review is a higher-level work. The review-credit system is already in place for the indexed journals. Reviewer credit is automatically added to the ORCID account of the reviewers. However, this is only for journals listed in the Web of Science. The reviewers deserve recognition for their contribution. This can be done in three ways:[6]

- Registering on the Web of Science Reviewer Recognition Services (formerly Publon).

- Registering for ORCID and linking it to the Web of Science account.

- Getting a reviewer recognition certificate, if needed. Journals can provide it.

Publication in a journal is a requirement for hiring and promoting in academia. The time has come to consider peer review in the list of promotion-related contributions.

Our reviewers of 2023:

Despite all the challenges, many learned colleagues reviewed the manuscripts and enriched 45 article publications, and many more were rejected in 2023. We got reviews from 57 reviewers **(TABLE 1)**; many of them reviewed more than one manuscript. We acknowledge our gratefulness to them. We expect more peers to accept review requests and submit high-quality reviews to facilitate the establishment of a research and publication culture in Bangladesh.

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
REFERENCES

1. Kelly J, Sadeghieh T, Adeli K. Peer Review in Scientific Publications: Benefits, Critiques, & A Survival Guide. EJIFCC. 2014 Oct 24;25(3):227-43. PMID: 27683470.

2. Spier R. The history of the peer-review process. Trends Biotechnol. 2002 Aug;20(8):357-8. DOI: https://doi.org/10.1016/s0167-7799(02)01985-6.

3.   BioMed Central. Peer review process: Introduction to peer review. https://www.biomedcentral.com/getpublished/peer-review-process

4.   Hillard T, Baber R. Peer review: the cornerstone of scientific publishing integrity. Climacteric. 2021 Apr;24(2):107-108. DOI: https://doi.org/10.1080/13697137.2021.1882140.

5.   COPE Council. COPE Ethical guidelines for peer reviewers — English. DOI: https://doi.org/10.24318/cope.2019.1.9.

6.   Wiley Author Services. https://authorservices.wiley.com/Reviewers/journal-reviewers/recognition-for-reviewers/index.html

TABLE 1 Reviewers of Bangabandhu Sheikh Mujib Medical University Journal, 2023

Internal Reviewers	External Reviewers
BSMMU	**National**
Ahmed, Sanjida	Ahmed, Helal Uddin
Akhter, Shaheen	Ali, SM Ashraf
Alam, Ferdous	Azad, Khondker A.K
Alam, Md. Razibul	Banik, Palash Chandra
Arafat, SM Yasir	Barua, Lingkan
Bhuiyan, Saiful Islam	Bhuiyan, Rijwan
Haq, Tahniyah	Chowdhury, Md. Abir Tazim
Khan, Md Maruf Haque	Hakim, Ferdous
Hasan, Nazmul	Hussain, Syed Md Akram
Hoque, Md Atiqul	Huque, Rumuna
Hossain, Md. Mozammal	Islam, Md Foyjul
Joarder, Md. Aminul Islam*	Islam, Md. Sahidul
Kazal, Rezaul Karim*	Khan, Md. Mahabub Ul Alam
Khaled, Md. Fakhrul Islam	Latif, Shah Abdul
Kundu, Gopen Kumar	Mashreky, Saidur Rahman
Laila, Tarafder Runa	Nahid, Nazmul Hasan
Mahtab, Mamun-Al	Rahman, Md Mujibur
Nishat, Latifa	Talukder, Humayun Kabir
Paul, Bijoy Kumar	**International**
Roy, Ranjit Ranjan	Abedin, Menhazul
Sajedin, Mahmood*	Aqeel, Noaman
Selim, Shajada	Behera, Deepak Kumar
Shabuj, Kamrul Hasan	Jamayet, Nafij
Shahin, Abu	Karim, Nazmul
Sharmin, Elora	Lanewala, Ali Asghar Anwar
Towhid, Muhammad Ibrahim Ibne	Moniruzzaman, Mohammad
Uddin, Mohammad Saief	Parray, Ateeb Ahmad
Zaman, M Mostafa	Rahman, KM Saif Ur
	Rahman, Mahbubur
	Ratan, Zubair Ahmed

*ResearchGate is given for those who do not have ORCID