

Prestige bias--an old, untreated enemy of the peer-review process

Bazoukis G

Second Department of Cardiology, "Evangelismos" General Hospital, Athens, Greece

Dear Editor,

During an informal dinner, a guest referred to a distant relative's death caused by a severe lower respiratory tract infection treated at an unprestigious small private hospital in a rural area. To my surprise, it was argued that the patient's outcome would be better if treated at a reputable private hospital in the capital - without any support of such an argument with evidence. A strange correlation was created between unprestigious hospitals and authors without prestigious affiliations with the "unfair" treatment of subjects and the "unfair" rejection of studies during the peer-review process. Without losing time, an online search revealed that the potential influence of the affiliated authors' institutional prestige on reviewers and editors is a real enemy of the unbiased peer-review process that has been well-known since 1982¹. Editors of high-impact journals have recognized the susceptibility of the review process to bias^{2,3}. Back in 1990, a randomized study showed that reviews' quality was graded slightly higher for blinded versus unblinded manuscripts⁴.

Furthermore, a recent study compared the review bias in single-blind (blinded for authors, while not blinded for reviewers) versus double-blind (the identities of both authors and reviewers are hidden from each other) peer-review process⁵. Interestingly, the authors found that the acceptance rates for papers from famous authors, top universities, and top companies were significantly higher in single-blind reviews⁵. Additionally, another study confirmed these results showing that the single-blind peer-review process favors reputed authors compared to the double-blind process⁶. Interestingly, in a randomized study, reviewers were arbitrarily grouped to receive either a single-blind or a double-blind version of a fabricated manuscript in a single journal⁷. The authors achieved a 28 % higher acceptance rate and higher overall reviewer scores when their prestigious names and institutions were visible⁷. These data provide strong evidence that the existing unblinded peer-review process that most medical journals use is prone to bias.

Even though the problem is well-known, medical journals have not implemented a double-blind, triple-blind (in addition to blinding the reviewers' identity, the authors' identity is also hidden from the editors) or quadruple-blind (the blinding is augmented by hiding the identity of the handling editor) peer-review process. At the same time, such a measure can eliminate peer review bias⁸. Also, "honorary authorship" is a common cause of misconduct in research practices⁹. The implementation of blinding in the review process could eliminate the "honorary authorship" of prestigious authors that mainly occurs to increase the likelihood of achieving a publication in high impact journals.

Why do the prestige and affiliation bias still exist as enemies of medical journals' peer-review process when there are many less biased methods? Why is no action taken while the review bias directly affects outcome that depends on the peer-review process? As currently, the peer review process does not universally address such concerns, the prestige bias remains "an old, untreated enemy of the peer-review process..."

Keywords: Publication, prestige bias, peer review, blinding

Conflicts of interest

The author declares no conflicts of interest.

References

1. Ceci SJ, Peters DP. Peer review--a study of reliability. *Change*. 1982; 14: 44-48.
2. Smith R. Opening up BMJ peer review. *BMJ*. 1999; 318: 4-5.
3. Bauchner H, Fontanarosa P. Bias Among Peer Reviewers. *JAMA*. 2017; 318: 755-756.
4. McNutt RA, Evans AT, Fletcher RH, Fletcher SW. The effects of blinding on the quality of peer review. A randomized trial. *JAMA*. 1990; 263: 1371-1376.
5. Tomkins A, Zhang M, Heavlin WD. Reviewer bias in single- versus double-blind peer review. *Proc Natl Acad Sci U S A*. 2017; 114: 12708-12713.
6. Seeber M, Bacchelli A. Does single blind peer review hinder newcomers? *Scientometrics*. 2017; 113: 567-585.
7. Okike K, Hug KT, Kocher MS, Leopold SS. Single-blind vs Double-blind Peer Review in the Setting of Author Prestige. *JAMA*. 2016; 316: 1315-1316.
8. Haffar S, Bazerbachi F, Murad MH. Peer Review Bias: A Critical Review. *Mayo Clin Proc*. 2019; 94: 670-676.
9. Artino AR Jr, Driessen EW, Maggio LA. Ethical Shades of Gray: International Frequency of Scientific Misconduct and Questionable Research Practices in Health Professions Education. *Acad Med*. 2019; 94: 76-84.

Corresponding author: George Bazoukis, MD, MSc, PhD, Second Department of Cardiology, General Hospital of Athens "Evangelismos", 47 Ipsilantou str., Athens, 10676, Greece, fax: +30213456873, e-mail: gbazyokis@med.uoa.gr