Conflicts of interest in journals

The role of major journals publishing the results of randomized controlled trials (RCTs) is crucial. This is because, when results are published in a major journal, the study receives “…the journal's stamp of approval”, the published results carry a kind of professional approbation, and the paper becomes more attractive to both the readers and media, who may amplify the real value of the results.

Staartjes et al. aimed to evaluate the extent and influence of conflicts of interest (COIs) in recent RCTs published in core neurosurgical journals using a cross-sectional analysis.

Through review of 6 general neurosurgical journals, all interventional RCTs published from January 2009 to January 2019 were identified. Because it is difficult to objectively assess study outcome, the authors opted for a strict rating approach based on the statistical significance of unambiguously reported primary endpoints, and the reported statistical protocol.

A total of 129 RCTs met the inclusion criteria. During the study period, the Journal of Neurosurgery published the largest number of RCTs (n = 40, 31%). Any potential COI was disclosed by 57%, and a mean of 12% of authors had a personal COI. Nonfinancial industry involvement was reported in 10%, while 31% and 20% received external support and sponsoring, respectively. Study registration was reported by 56%, while 51% of studies were blinded. Registration showed an increasing trend from 17% to 76% (p < 0.001). The median randomized sample size was 92 (interquartile range 50-153), and 8% were designed to investigate noninferiority or equality. Sixty-three RCTs (49%) unambiguously reported a primary endpoint, of which 13% were composite primary endpoints. In 43%, study outcome was positive, which was associated with a noninferiority design (31% vs 3%, p = 0.007) and a composite primary endpoint (46% vs 9%, p = 0.002). Potential COIs were not significantly associated with study positivity (69% vs 59%, p = 0.433). In the multivariate analysis, only a composite primary endpoint remained predictive of a positive study outcome (odds ratio 6.34, 95% confidence interval 1.51-33.61, p = 0.017).

This analysis provides an overview of COIs and their potential influence on recent trials published in core neurosurgical journals. Reporting of primary endpoints, study registration, and uniform disclosure of COIs are crucial to ensure the quality of future neurosurgical randomized trials. COIs do not appear to significantly influence the outcome of randomized neurosurgical trials.

An increasing amount of funding in neurosurgery research comes from industry, which may create a conflict of interest (COI) and the potential to bias results. The reporting and handling of COIs have become difficult, particularly as explicit policies themselves and definitions thereof continue to vary between medical journals. In a study, de Lotbiniere-Bassett et al. sought to evaluate the prevalence and comprehensiveness of COI policies among leading neurosurgical journals.

The authors conducted a cross-sectional study of publicly available online disclosure policies in the 20 highest-ranking neurosurgical journals, as determined by Google Scholar Metrics, in July 2016.

Overall, 89.5% of the highest-impact neurosurgical journals included COI policy statements. Ten (53%) journals requested declaration of nonfinancial conflicts, while 2 journals specifically set a time period for COIs. Sixteen journals required declaration from the corresponding author, 13 from all authors, 6 from reviewers, and 5 from editors. Four journals were included in the International
Committee of Medical Journal Editors (ICMJE) list of publications that follow the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (currently known as Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals). Five journal policies included COI declaration verification, management, or enforcement. The neurosurgery journals with more comprehensive COI policies were significantly more likely to have higher h5-indices (p = 0.003) and higher impact factors (p = 0.01).

In 2016, the majority of, but not all, high-impact neurosurgical journals had publically available COI disclosure policies. Policy inclusiveness and comprehensiveness varied substantially across neurosurgical journals, but COI comprehensiveness was associated with other established markers of individual journals' favorability and influence, such as impact factor and h5-index.

A study aimed to determine the prevalence and financial magnitude of potential conflict of interest among editorial board members of five leading spine journals. The editorial boards of: The Spine Journal; Spine; European Spine Journal; Journal of Neurosurgery: Spine; and Journal of Spinal Disorders & Techniques were extracted on January 2013 from the journals' websites. Disclosure statements were retrieved from the 2013 disclosure index of the North American Spine Society; the program of the 20th International Meeting on Advanced Spine Techniques; the program of the 48th Annual Meeting of the Scoliosis Research Society; the program of the AOSpine global spine congress; the presentations of the 2013 Annual Eurospine meeting; and the disclosure index of the American Academy of Orthopaedic Surgeons. Names of the editorial board members were compared with the individuals who completed a disclosure for one of these indexes. Disclosures were extracted when full names matched. Two hundred and ten (29%) of the 716 identified editorial board members reported a potential conflict of interest and 154 (22%) reported nothing to disclose. The remaining 352 (49%) editorial board members had no disclosure statement listed for one of the indexes. Eighty-nine (42%) of the 210 editorial board members with a potential conflict of interest reported a financial relationship of more than $10,000 during the prior year. This finding confirms that potential conflicts of interest exist in editorial boards which might influence the peer review process and can result in bias. Academia and medical journals in particular should be aware of this and strive to improve transparency of the review process. Janssen et al. emphasize recommendations that contribute to achieving this goal.

Traditional peer-review processes used by journal editors to aid in deciding which papers are worth publishing is not capable of filtering some of the more sophisticated techniques of covered marketing and conflicts of interest. The incorporation of ethicists in the peer review process would likely help to raise red flags and to properly consider the routine statement that the study was accepted by the “human review board” of some prestigious university. By rejecting suspicious ethical studies, editors may not be able to help make the world a fairer place, but they will help in building a healthier scientific community and sending a clear message, to both scientists and the industry, that it is unacceptable to exploit and potentially harm a few people for the sake of many.

Editorial board members of medical journals

Conflicts of interest arising from ties between pharmaceutical industry and physicians are common and may bias research. The extent to which these ties exist among editorial board members of medical journals is not known.
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