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FILE: Peer Review Process

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RE: **Peer Review: Problems with Bias in Medical Journals**

Stephenson, Joan. Medical Journals Turn Gaze Inward to Examine Process of Peer Review. *Journal of the American Medical Association*, November 5, 1997, Vol. 278, No. 17, pp. 1389-1391.

Peer-reviewed biomedical journals wield great influence over researchers, drug manufacturers, and other producers of therapeutic services and products, health care practitioners, and the public. By determining what research is published, reviewers may make or break careers and profit margins; unbalanced peer review can lead to the sale of ineffective drugs.

The peer review process has inspired its own body of research into how to support its soundness. Recently, representatives of 46 countries gathered for the International Congress on Biomedical Peer Review and Global Communications in Prague, the Czech Republic, to grapple with some of the ethical issues raised by the current peer-review system.

This article identifies several key issues raised by the Congress and the ongoing field of study of peer review. Bias on the part of reviewers is a central concern — bias against disciplines outside the reviewer's or author's own specialty, bias against studies published in languages other than English, and bias against obscure researchers and in favor of "celebrity" researchers. Within the published research itself, authors are often biased against citing literature that doesn't support their research conclusions, therefore doing a poor job of reflecting the published literature on a given topic.

The issue of bias against research published in non-English journals may be of particular relevance to the field of herbal medicine, in which the bulk of research is done outside the U.S. "English is the predominant language of biomedical research," says Christoph Junker, MD, of the University of Berne, Switzerland. Junker assessed the quality of German-language reports on placebo-controlled trials published in 5 German, Swiss, and Austrian general medical journals, and compared them to trials published by the same authors in English. Quality scores of the reports in English-language journals were slightly higher than their German counterparts, but Junker concluded that the

differences were too small to justify bias. He added that the differences do not justify the studies' exclusion from meta-analyses of randomized controlled trials, or their poor visibility on MEDLINE. The article questions the value of "masking," or attempting to make reviewers or authors anonymous. Doing it successfully could be impossible, and the masking process has permitted some notorious examples of self-serving suppression of research on the part of reviewers. To date, studies have not found a marked difference in the quality of masked over unmasked reviews. One study of masking inadvertently revealed that the quality of reviews, masked or unmasked, was "lamentably bad," according to the researcher Christopher Martyn.

A coalition of more than 100 journals from around the world are attempting to redress the very serious problem of underreporting of negative trials, or studies with insignificant results. Because they are less "newsworthy," trials yielding inconclusive results can rarely find publishers. Cumulatively, the impression among healthcare provider-readers can be overly positive toward drugs with inconsistent proof of efficacy, since only the positive trials are printed. "Patients are being given drugs that don't work," warns Ian Roberts of the Institute of Child Health at the University of London. In recognition of this problem, the journal coalition has declared an "amnesty" for unpublished research and are opening a register to provide access to it — for those who are willing to pursue the information.

Recent studies indicate that medical journal "experts" exercise another kind of bias — the topics they choose to cover do not reflect their reader's priority interests. Dr. George Lundberg, editor of *JAMA*, commented on a reader-interest study conducted by his journal. "Readers — mostly practicing physicians — knew what they needed to know and didn't need to know in order to care best for the patients walking into their offices." Dr. John Bailar of the University of Chicago adds, "In this area, we need more and better publication bias that considers the needs of readers." *JAMA* editors ranked alternative medicine 68 out of 73 topics in order of priority; however, its readers ranked it number 7. —*Betsy Levy*