



In the Bookstores . . . Peering at Peer Review

by Karen Shashok

Fiona Godlee and Tom Jefferson, eds. Peer Review in Health Sciences. London: BMJ Books, 1999. ISBN 0 7279 1181 3

Members of EMWA who work closely with authors in preparing manuscripts for primary publication have probably been surprised, frustrated, disgusted, or at least bemused by apparently unjustified criticism—or even rejection—of a paper. Other colleagues may have wondered how peer review actually works, and what standards guide authors, reviewers and editors in making manuscripts acceptable for public dissemination. How are reviewers selected? How much weight do their opinions have in determining the editor's decision? Would readers agree with these decisions if they had access to manuscripts that were not accepted?

The most important message this book aims to transmit is that peer review, at least as it is practiced in biomedicine, is an untested and possibly unreliable way to decide what gets published or funded, and what doesn't. As the editors state in their introduction (p. xi), peer review is "a process with so many flaws that it is only the lack of an obvious alternative that keeps the process going". Colleagues who are shocked by this statement may also be surprised to learn that there are no universally accepted standards for running a peer review system. In fact, much research is now being devoted to discovering what peer review can and cannot do, and how the process can be improved to make it more transparent, professional, and accountable.

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The contributors to this book are among the most respected "editologists" and "journalologists" in the world. A total of twenty chapters, divided into three parts, provide a clear, detailed overview of research on peer review, current practices, and possible changes that might make it better in the future. The chapters are sensibly organized with well-deployed subheadings, and most of them end with a concluding section that summarizes the main points or offers recommendations for action.

An especially useful feature of this book is that it also considers peer review in settings other than "international" primary journals, with chapters that examine the process in grant applications, economic studies, the pharmaceutical industry, and in smaller, society-sponsored journals that may publish in a language other than English. One chapter is devoted to ways in which using the Internet for peer review might help to make it faster, fairer and more effective; there is also a chapter on statistical peer review.

A chapter aimed specifically at editors advises on how to set up a peer review system; another explains to reviewers how to provide useful feedback on a manuscript; and a most welcome contribution written for authors recounts the main stages in scientific peer review and publication, and divulges how to communicate effectively with editors and reviewers. This chapter should be required reading for anyone who plans a research career in the health sciences.

A theme that is repeated throughout the book is the need for further research, and for efforts to design studies that will overcome the methodological limitations of much of the work done to date. Readers who may wish to investigate peer review from outside the medical research community (for example, sociologists, psychologists, managers, translators, and experts in English for special purposes) may be put off by the emphasis on study designs that attempt to imitate the quantitative methods of prospective, randomized, controlled trials. After all, peer review is essentially a human process, and attempts to understand and improve it may well benefit from input by other academic disciplines that use descriptive methods and other strategies to identify variables, outcome measures, and potential confounders.

People who are already familiar with the ongoing debate on peer review will find in this book a useful compendium of information and sources, although they will notice that a few general medical journals, i.e., *British Medical Journal*, *The Lancet* and *JAMA*, dominate most of the lists of references provided at the end of each chapter. For people who may wish to use this book as a starting point for their own research on peer review, the index will unfortunately let them down. Many potentially useful entries are missing, and many others refer the curious reader to a just one page of this 258-page work. Because of inadequate cross-referencing between chapters, important information on specific points of interest may be overlooked.

Like any other research problem, peer review will never be completely "solved". It will evolve as the technology of scientific publication changes, and as authors increasingly demand accountability, fairness, speed, and the right to appeal. As noted in the final chapter, peer review is entering a period of rapid change which follows a few hundred years of complacency grounded on unproved assumptions of editor and reviewer competence and objectivity. This book, along with the international congresses on peer review (the fourth to be held in Barcelona in 2001), marks a historical change in attitude by both the producers and the gatekeepers of biomedical knowledge, who now recognize that the biases inherent in peer review need to be identified and, if possible, removed.

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