

# Editorial

## Improving peer review

The availability of health information on the Internet raises important questions about the role of peer-reviewed journals. Increasingly, people have access to, and need to distinguish between many different reports and claims, all asserting their importance and validity. What is the role of the peer-reviewed journal in this new age? Richard Smith, former editor of the British Medical Journal recently described peer review as '*a very flawed practice, slow and expensive, a lottery, and prone to abuse and bias*' (Boseley, 2005).

But despite these criticisms, few alternatives have been proposed and most editors argue that peer review is integral to the scientific process and indispensable to their journal (Laine and Mulrow, 2003; Isohanni, 2005). The open access journals recently launched by BioMed Central ([www.biomedcentral.com](http://www.biomedcentral.com)) and the Public Library of Science ([www.plos.org](http://www.plos.org)) continue to use peer review and have introduced innovations to the process.

Over recent years there have however been major changes in the way that peer review systems operate. Although the larger journals have moved fastest, perhaps because they face greater public scrutiny and have more resources for technological innovation, these developments also have implications for smaller journals such as *Primary Health Care Research and Development*. For example, some journals have adopted 'open' systems so that authors can identify who has reviewed their work. The Prague Congress in 1997 highlighted concerns about the secretive and unaccountable nature of systems that allow reviewers anonymity (Rennie, 1998), but surveys of reviewers suggest that they prefer not to disclose their names (Hearse, 1994). In a randomized trial, van Rooyen *et al.* (1999) found that reviewers who were asked to be identified were more likely to decline than those asked to remain anonymous (van Rooyen *et al.*, 1999). Although open reviewing makes reviewers more accountable, and hence more likely do the task diligently,

some fear that they may be less willing to criticize. As a result, editors may need to take more of the unwelcome decisions to reject papers.

Many of the larger journals have switched to web-based submission and review. Although there appear to be significant benefits, cost constraints make this hard for smaller journals. Another change, which larger journals increasingly adopt, is to rely on in-house editorial staff to triage papers, commission reviews and revise papers before publication.

The contribution that reviewers make to *Primary Health Care Research and Development* is crucial. During 2004, 143 people reviewed submissions to the journal (see list in this issue of the journal). Although unpaid, they have made a tremendous contribution to the quality of the papers published. As Horrobin (1990) pointed out, reviewers are not just undertaking an exercise in quality control; they should also aim to select papers that promote innovation and '*facilitate the introduction into medicine of improved ways of curing, relieving, and comforting patients*' (Horrobin, 1990). The richness of many of the reviews that we receive is evidence of how well many of our reviewers undertake this role.

We reviewed the role of peer review in this journal at workshop during the 2005 Society for Academic Primary Care conference. We asked attenders to read a sample of anonymised reviews and give their views on what makes a good review. As every paper is read by at least two reviewers, attenders were able to compare different assessments of the same papers. There was a consensus that the better reviews provided a judgement on the significance of the work, whether the study design was robust and the conclusions drawn logically from the findings. Good reviews also considered the scholarship of the work, assessing how well the authors drew on the existing literature and the contribution the paper would make. It was helpful when reviews followed the structure of the article, which made it easier for authors to make use of their suggestions.

Some provided additional references, which the group felt would be helpful to an author in revising their paper.

From the editor's point of view, the ideal review provides a sound assessment of the article submitted, is based on a good grasp of the topic area and includes constructive recommendations that can be fed back to the authors without the need for editing. While expert knowledge is important, a generalist perspective, on whether the paper will interest readers from across primary care is equally valuable.

What motivates reviewers? For some, it is an altruistic commitment to quality in science, but people at the workshop identified other reasons too. Some saw it as a way to improve their writing skills, or learn about the publication process. Others were particularly interested in the topic. We are all flattered to be asked our expert opinion and no doubt this also plays a part in why reviewers are so generous with their time.

Reviewers said they wanted the opportunity to choose the topics they were to be asked to consider and the option to decline if they were too busy. They wanted brief guidance on the task, and commented that although checklists were helpful, good reviews needed to go beyond ticking boxes and contribute to improving articles. They thought it would be helpful to subsequently see what the second reviewer had said, as a means to check that their assessments were not too harsh or too soft. Although they wanted to influence publication decisions, reviewers wanted editors to take final responsibility for this. Sometimes they felt their contribution should be more widely acknowledged, especially by those funding academic posts.

While authors may see peer review as a necessary evil, most recognize that it plays an important role in validating their work. Few papers get published without any revisions, so if editors ask for revisions to be made, it means that they and the reviewers value the work. So it is important not to take criticism personally. Instead, authors need to think through the best ways to address reviewers' concerns; often by making the changes suggested,

but sometimes by defending their work if reviewers ask for something that seems unreasonable.

As a result of the workshop, we are reviewing our guidance for reviewers and will use the criteria developed to monitor the quality of the reviews we receive. We are formalizing our register of reviewers' interests and invite readers to join our reviewers panel. If you would like to contribute, please download the reviewers form from the website ([www.phcrd.org](http://www.phcrd.org)). Peer review is central to the journal and we hope these changes will lead to further improvements in the quality of the work we publish.

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