

### Ensuring the quality of peer-review process

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I have recently noticed that the Saudi Medical Journal adopted “ask first” protocol to recruit referees. “Asking first” - by query potential reviewers before sending manuscripts- is an alternative protocol to “just send” where reviewers are allowed to opt out. Actually, that motivated me to search for the studies, which have evaluated interventions that try to improve peer review. Smith<sup>1</sup> stated that “the problem of peer review is that we have a good evidence on its deficiencies and poor evidence on its benefits”. Hereafter, I am spotting the light on some studies, and proposing some ideas to ensure the quality of the peer review process in the journal we all value highly. Pitkin and Burmeister<sup>2</sup> concluded in their study that “ask first” led to a higher rate of referee turnaround than did “just send” (15%, 8%, respectively). However, assenting “ask first” referees completed reviews faster, albeit the overall time for the review process did not differ between the two protocols. Hence, the authors concluded that they found no indication that soliciting in advance affected review quality.<sup>2</sup> The effects of short training packages on quality of peer review was studied by Schroter et al.<sup>3</sup> The one full day of face to face training package had only a slight impact on the quality of peer review in terms of quality of reviews and detection of deliberate major errors. However, the training did influence reviewers’ recommendations to editors. The authors recommended that the value of longer interventions need to be assisted.<sup>3</sup> Others studied the feasibility of using a fictitious manuscript to evaluate peer reviewers performance. Smith<sup>1</sup> mentioned that editors of the BMJ took a paper about to be published in the BMJ, inserted 8 deliberate errors, and sent the paper to 420 potential reviewers: 221 (53%) responded. The median number of errors spotted was 2, nobody spotted more than 5, and 16% did not spot any.<sup>1</sup> In a similar study by Baxt et al<sup>4</sup> in the Annals of Emergency Medicine (Ann Emerg Med) peer reviewers in this study failed to identify two thirds of the major errors in a fictitious manuscript. Therefore, they concluded that the use of a preconceived manuscript into which purposeful errors are placed might be a viable approach to evaluate reviewer performance.<sup>4</sup> Errors in references in manuscripts submitted for publication are common. Browne et al<sup>5</sup> showed that over half of all references included in manuscripts submitted to radiology journals contain at least one error.<sup>5</sup> Therefore, another approach to study the reviewers’ performance is through testing the agreement between reviewers and

editors in detecting errors in references in a sample of manuscripts accepted for publication. As in all quality talks, we could not neglect satisfaction. Weber et al<sup>6</sup> studied the differences in satisfaction between authors whose manuscripts were accepted, reviewed and rejected by the Ann Emerg Med. Contributor satisfaction with peer review was modest. Authors of rejected manuscripts were dissatisfied with the time to decision and communication from the editor. Author satisfaction is associated with acceptance but not with review quality. Authors with more publication experience expressed less satisfaction with the peer review process.<sup>6</sup> Also, the Saudi Medical Journal could analyze a representative sample of peer review material to compare the characteristics and the different types of comments amongst accepted and rejected manuscripts. Turcotte et al<sup>7</sup> conducted a similar study for the Canadian Journal of Anesthesia (CJA). The authors concluded the most important aspects that influence acceptance or rejection of manuscripts submitted to CJA, namely the originality of the study, appropriate study design, and the relationship between experimental designs, results and conclusions.<sup>7</sup> Improving authors’ as well as reviewers’ awareness of these aspects definitely ensure the quality of submitted articles and the quality of peer review process.

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