

# Critical appraisal, reviewing and synthesizing the injury prevention and control literature: time to revisit peer-reviewing and systematic reviews?

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To contribute to the global objectives of the WHO 'Injuries and Violence Programme'<sup>1</sup> of 'developing and disseminating guidance for countries on evidence-based policy' and 'documenting and disseminating successful injury prevention approaches, policies and programmes', *Injury Prevention* 'publishes original research, opinion, debate and special features on the prevention' (and control) 'of unintentional and intentional (violence-related) injuries from a public health perspective'.<sup>2</sup> Among submissions considered by the journal are systematic reviews, 'syntheses of the state of knowledge in a field, from which future research priorities can be identified'; (these syntheses) 'generate' [...] 'knowledge for different users of reviews (such as patients, health-care providers, researchers and policy-makers)'.<sup>3</sup> Systematic reviews are also the basis for developing clinical guidelines or policy recommendations.<sup>4</sup>

The process leading from the emergence of new research ideas to the implementation of injury prevention and control interventions is characterised by the key role of critical appraisal. Researchers submit their research proposals to a critical appraisal to obtain funding and authorisations. Once the research is completed, resulting papers are peer-reviewed by scientific journals. Finally, evidence-based clinical guidelines and public health recommendations must be based on a systematic review of the existing scientific literature, including methods to assess the risk of bias in the included studies.<sup>3</sup> At all steps of this process, critical appraisal/peer review covers three dimensions: (1) the relevance of the question raised by the researchers, to the sponsor of the research, the readership of a journal, or the needs of the targeted population, practitioners or decision-makers; (2) the quality of the methods considered and actually used to carry the research, and the resulting level

of trust in the results, and (3) the respect of research and publication ethics.

Although the role and process of critical appraisal/peer review are important to disseminate and synthesise research and to reach sound recommendations, we are confronted with two major issues. First, the need to rapidly access evidence that might dramatically impact practice or public health, exemplified at the onset of the COVID pandemics, has amplified the dissemination of preprints. Because preprints 'are reports of work that have not been peer-reviewed'<sup>2</sup> [...] *Injury Prevention*, as a member of the *BMJ* group, states that they 'should [...] not be used to guide clinical practice, health-related behaviour or health policy'.<sup>2</sup> However, recommended methods of systematic reviews and meta-analyses include a search and analysis of grey literature. Thus, one could argue that, if a study is relevant to an urgent public health decision, it should be included in the systematic review of the evidence, provided the preprint provides all the information needed to carry a thorough critical appraisal.

The second issue is related to the availability, skills and motivation of reviewers. Platforms used by editors include publication search tools, making the selection of reviewers relatively easy and rapid. Nevertheless, globally, most journal editors have observed a steady increase in the number of persons to be contacted to get required reviewers, as more and more people are reluctant to take on peer-review tasks.<sup>5</sup> Several difficulties might contribute to this trend. First, good reviewing takes time: in the post-COVID-19 era, with all health systems and professionals having major issues to deal with, busy researchers might be reluctant to put the needed time to review papers. Second, good reviewing is difficult: selecting potential reviewers based on their publication list does not provide any information on their training and experience in critical appraisal, and on whether researchers feel comfortable in reviewing or not.<sup>6</sup>

What tracks could be explored to deal with these issues? First, it has been suggested that the review process could be made easier by using previous reviews when reviewing a new paper; for instance, some journals accept protocol manuscripts after a simplified review process if the protocol has already been reviewed within a funding call process. The principle is also implemented in some publishing platforms (see for instance: <https://www.octopus.ac/>) where researchers enter an ongoing process by which research is reviewed from the onset (formulation of ideas and hypotheses, protocol) to final results. It is too early, however, to assess whether researchers will be more willing to carry reviews within this process than in the journal peer-review model.

Second, the peer-review can be internalised in journals, by having all papers reviewed by members of the editorial boards rather than seeking ad-hoc reviewers for each submitted paper; it is unclear whether the benefits of this model (better understanding by reviewers of the expectation of the journal, possibility of training incoming editors to homogenise the output, speeding up of the review...) are higher than the disadvantages (higher workload for all members of the editorial board, lack of coverage of relevant competences, need for larger boards...).

Last and not least, in my opinion, it is time for a paradigm change: most journals, including *Injury Prevention*, function implicitly on the assumption that all researchers are potential reviewers, and that peer-review is part of their profession. Unfortunately, there is little reward for being a reviewer, and good and rapid reviewers might even be penalised by being more often solicited. It has been argued that the economic model of most scientific journals should allow some kind of recognition of reviewers; whether this recognition should be monetary, in-kind or any other form remains to be evaluated in properly conducted experimental research.<sup>7</sup>

The editors of *Injury Prevention* call for authors, reviewers and all users of published original research, systematic reviews, guidelines and policy recommendations to react, using the rapid response feature, to issues raised in this editorial. We are mostly interested in knowing how members of the injury prevention and control community

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feel publishers and editors should deal with the proliferation of preprints, the possibility to consider them in systematic reviews, and how the work of reviewers should be recognised.

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