The malign influence of impact factors

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We are in serious danger of letting journal impact factors dominate our professional lives. Appointments committees judge a candidate's research by them. The panels of the research assessment exercise grade university departments by them. Tenure and merit awards hinge on them.

Eavesdrop a gathering of alpha male clinical academics and you will hear boasting about the size of the impact factors of the journals they have published in. Editors do not boast about them; instead, they secretly devise stratagems to increase them. Take a look, for example, at 'Editor's choice' in a recent issue of the *International Journal* of—well, perhaps it had better remain nameless. You will find that the recommended articles are no longer flagged by page numbers (which would be helpful to the reader but invisible to the citation search engine of Thompson ISI who calculate the impact factor) but by superscripts and a list of references, which the engine can easily detect.

I suppose we have been hoodwinked by the apparent simplicity and objectivity of impact factors. But the idea that

we can judge a journal (and, by extrapolation, the quality of the researchers who publish in it) by the average number of citations each paper published in that journal receives is not so much simple as simple-minded. The frequency distribution of citations is highly skewed. Most papers are never cited; some get a few citations; only a small number get a lot. Quite apart from the fact that it is misleading to characterize such a distribution by an arithmetic mean, it is obvious that the majority of papers in the journal are cited less frequently than the impact factor would suggest. Impact factors may tell us a little about the quality of a journal, but they certainly do not tell us anything useful about the quality of an individual paper in it.

Numerous articles have pointed out the deficiencies of impact factors. As a means of judging science and scientists, they are fatally flawed. Using them in the way that we do at the moment corrupts the whole research endeavour. Next time you hear the words 'impact factor', reach for your revolver.

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Conflict of Interest The author edits a journal whose impact factor is only 2.6. He pretends not to care.