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No peer reviewers means no journal

EDITORIAL

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The peer review system is in crisis. The volume of research being published far exceeds the number of voluntary peer reviewers available. But we are fortunate at the Journal of the Norwegian Medical Association.

Photo: Einar Nilsen

'We (Mr. Rosen and I) had sent you our manuscript for publication and had not authorized you to show it to specialists before it is printed. I see no reason to address the – in any case erroneous – comments of your anonymous expert. On the basis of this incident I prefer to publish the paper elsewhere.'

This quote is taken from a letter Albert Einstein sent to the editor of Physical Review in 1936 (1). Einstein had submitted a manuscript concluding that gravitational waves do not exist (which they do). The editor showed the text to an expert in the field, who pointed out errors in the analysis and conclusion. However, Einstein was so offended by this 'breach of trust' that he chose to withdraw the article. The peer review concept, as we know it today, was likely unfamiliar to him.

It began in 1863 when the then editor of the British Medical Journal, Ernest Hart (1835–98), asked others for help in reviewing the manuscripts he received. He complained about the extra work the reviews entailed, including the 'constant vigilance to guard against personal eccentricity or prejudice' (!) (2). This may partly explain why few others adopted the practice. It was not until the second half of the last century that peer review became common practice, and the prestigious journal Nature did not systematically introduce the system until 1973 (2).

> ***«Today, the very definition of a scientific article is that it has been reviewed by other researchers»***

Today, the *very definition* of a scientific article is that it has been reviewed by other researchers. External peer review is intended to ensure the quality of published work and democratise science (3). However, the system is far from perfect: conducting a thorough review takes time, delays the publication process, is rarely objective, and reviewer consensus regarding the same manuscript is low (3–5). Even experts often make mistakes: in a classic, albeit somewhat dated study, three editors deliberately introduced eight errors into a manuscript and sent it to 420 reviewers. On average, only two of the eight weaknesses in the study were identified (6).

Alternatives to peer review exist, such as paying reviewers (which is costly for smaller journals), conducting peer review after publication (risky in certain fields, like medicine), or – a more recent approach – hoping that artificial intelligence is clever enough to do the job (4, 7). But for now, the words of former BMJ editor Richard Smith, paraphrasing Winston Churchill, still hold true: 'a system full of problems but the least worst we have' (8).

In addition to its well-known shortcomings, the long-term viability of the system is increasingly in doubt. Quite simply, too much is being written. The number of research articles is growing far more rapidly than the number of researchers willing to review them. Among the various contributing factors, the pressure to publish is perhaps the main one: researchers must prioritise publishing their own work rather than helping others. They may also be less inclined to work for free for large publishers that generate enormous profits from publishing fees. In an interview with Nature, one researcher explained that he deliberately refuses to review manuscripts for these publishers, choosing instead to prioritise non-profit, non-commercial journals (9). Additionally, editors tend to ask the same people repeatedly, typically those with the most experience. Around 20 % of researchers perform 90 % of all peer reviews (5).

What is the situation at the Journal of the Norwegian Medical Association? We have just finished reviewing data from the past few years, and it transpires that we are in a fortunate position. On average, we only have to contact 1.6 potential peer reviewers to get one to accept. Internationally, that number was 2.4 back in 2018 (3), and is probably even higher now. The number we need to ask has remained stable over time, so we are not experiencing the same crisis described

by editors of journals in other countries. The Journal's peer reviewers also consistently provide timely feedback. This has helped us substantially reduce the processing time for scientific articles in recent years.

We therefore owe a big thank you to all of you who take the time to review manuscripts for us. And to those of you who are not able to: we really appreciate it when you suggest someone else! This reduces the need to repeatedly rely on the same reviewers and gives more people the opportunity to gain experience in peer reviewing for the Journal. You are welcome (after our approval) to involve a younger colleague who wants to learn the craft. This is the only way to sustain the system that has united the academic community for nearly a century. Because no peer reviewers means no Journal.

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