Description

During the COVID-19 pandemic, new research is being published more quickly than ever before. Getting new research results out there as soon as possible has clear benefits. Important discoveries can be shared with researchers and the general public around the world; at its best, this will aid efforts to fight the pandemic and help prevent duplication of research effort.

Some researchers might also have personal reasons for wanting to publish as quickly as possible during this time. For example, they could see an opportunity to build a publication list in a short span of time. In addition, COVID-19 research is currently likely to attract much more attention than other topics. So, irrespective of the reason, researchers are opting for ways to get their research published faster.

In order to publish faster, many researchers have targeted preprint servers. Preprint servers, such as BioRxiv, have certain advantages—mainly that they are both fast and free (to publish and to access, respectively.) However, the articles on preprint servers have not gone through peer review, raising the possibility that they could be spreading "bad science."

During the pandemic, some well-known journals have shortened the time they take to get an article to publication. At the same time, some less-reputable journals might be attracting more papers as they tend to be quicker to publish articles—perhaps because their review processes are less stringent.

Should publishing research faster be a priority? Or should researchers strive, as always, for high-quality research publications? The answer, I think, is that sharing research quickly can be a good thing—but not if it is at the expense of quality of the work.

Speed Over Quality?

There are many reasons why speed of publication should NOT take priority over the quality of the research. This applies to both preprints and journals.

Crucially, there must be enough time for a proper review. This is at the heart of scientific publication and is the best way to ensure "good science." Additionally, while "bad science" can be damaging at any time, it could have particularly severe consequences during this pandemic. False or misleading results could have a direct impact on human health.

You should certainly ensure that you submit your article to a reputable journal with a proper peer review process. If you are aiming to submit your article to a preprint server, you can also make sure your work is thoroughly checked first, by you and your co-authors.

What Not to Do

Understandably, you want to publish your work quickly. But you also understand that it is essential not to compromise on quality. So, what should you look out for?

Don't Rush

Normally, good scientists spend months or years developing their ideas before carrying out research and turning their findings into a paper. Now, some researchers are managing to do this in a matter of days. In such cases, the focus is on the goal, rather than the scientific process. Often, researchers who are guilty of this are seeking an exciting, newsworthy result and will neglect the science in the process. Problems with methodology, such as a small sample size and selective reporting of results can also arise when research is rushed.

Don't Forget to Be Transparent

As with all papers, transparency is essential in scientific publishing. You should make sure that anyone reading your paper has all the information they need to be able to assess the work. A desire to publish quickly is no excuse for leaving out crucial information. If you do this when you submit your paper to a reputable journal, it will almost certainly be rejected. However, if you have large amounts of data, you can make this available in a repository.

Avoid Method Mistakes

Researchers working on COVID-19 generally have very clear goals. For example, they might want to know if a particular treatment is helpful, or how many people in a certain population have had the disease. As these questions are of great importance to human health, it is tempting to choose a method that will give a quick answer rather than the most scientifically sound method. Take sample size, for example—while a small study might give an apparently striking result, it must be made clear that its impact will be limited.

Avoid Bad Statistics

People have so many questions during the COVID-19 pandemic. Often, these boil down to: how bad is it? What is my risk of catching the disease? What is my risk of dying?

Statistics can potentially answer these kinds of questions (although not with the certainty that the media might like). However, scientists must avoid the temptation to use statistics in a biased way—to give a positive result, or one that is likely to attract attention, for example. As always, be clear in your report about exactly which statistical analyses you have done and what the implications are.

Don't Be Afraid to Correct Your Work

Finally, remember that a paper that is rushed to publication is more likely to contain mistakes. On preprint servers, mistakes can be relatively easily corrected, by removing articles and replacing with revised versions. These corrections could even increase your chances of later publishing the article in a reputable journal.

What About Journals?

Interestingly, preprint servers are only a small part of the problem. Researchers have found that around 80% of the huge number of COVID-19 articles that have appeared in recent months are published in journals.

Researchers should not take sole responsibility for the problems of fast publishing. Journals can also help. For example, at this time, some journals have introduced an expedited peer review process. While this could be a good thing, journals should ensure that their normal review standards are not compromised for the sake of publishing articles more quickly. Journal editors could also insist that their normal standards and guidelines still apply.

Have you seen an increase in publication since the start of the pandemic? How important do you think speed of the publication should be? Please share your thoughts with us in the comments below.

Category

1. Publishing Research
2. Understanding Ethics

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