

Perspective

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Dissemination of scientific information to fight against COVID–19: Academic journals' role

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In December 2019, the unprecedented newly emerging coronavirus disease 2019 (COVID-19) was first identified. In March 2020, the World Health Organization (WHO) declared the disease a pandemic, which posed a severe challenge for the mankind. At the beginning of the outbreak, the origin of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which is the causative agent of COVID-19, mode of transmission, prevention and control, diagnosis and treatment all remained unknown. What's worse, the disease spread rapidly and widely. The whole world was in panic. Policymakers across the globe had to make quick decisions to defeat the virus under high uncertainty. Governments, academia, researchers and public health infrastructures around the world were not well-prepared for such a pandemic, and academic journals were also faced with the enormous task of rapidly communicating research findings on COVID-19 while maintaining scientific vigor and integrity of the published studies. Rapid dissemination of the most up-to-date scientific discoveries is of great importance in the current COVID-19 pandemic; thus, the global scientific publication community has adapted to expedite the publication of important and time-sensitive COVID-19 studies.

As SARS-CoV-2 continues its deadly spread, researchers must ensure that investigations on this outbreak are shared in a timely manner, and most academic journals and publishers have made their COVID-19 articles immediately and openly accessible, or freely available at least for the duration of the outbreak. A total of 160 academic journals and publishers signed a joint statement (including Elsevier, F1000 Research Limited, *Frontiers*, Springer Nature, *The Lancet*, Wiley, and Wolters Kluwer, etc.) on sharing research data and findings relevant to COVID-19[1]. The statement was initiated in February 2020 by Wellcome, one of the largest biomedical research funders in the world, aiming to ensure that research findings and data relevant to this outbreak are shared openly in the shortest time possible to inform the public health response and help save lives. Medical and scholarly publications delivered on the pressing need

for data faster than ever before. Biomedical journals cut the review phase in half down to two months. Digital manuscripts are now published and accessible as soon as the text is finalized[2]. Preprint servers even make the articles available online within 48 hours. Article types have also become much more diversified.

Asian Pacific Journal of Tropical Medicine (APJTM) is also committed to the principles and remains dedicated to disseminating the emerging findings rapidly, freely and transparently that could aid the global response. *APJTM* has shortened the publishing cycle while being fully committed to maintaining a robust peer-review process and the integrity of scientific publication. Accelerating peer-review, expediting editorial steps, fast track and ahead of print were done to accelerate publication. Such practice is acceptable for journals in the circumstances of pandemics. It is also in line with the practices of other medical journals such as *New England Journal of Medicine*, *The Lancet* and *The Journal of American Medical Association* which all rapidly released publications relevant to the COVID-19 pandemic since January 2020.

APJTM not only accepted COVID-19 original articles, but also rapidly published a large number of letters to editor and perspectives. *APJTM*'s first COVID-19 manuscript was a letter to editor submitted on January 30, 2020 with the aim of identifying the epitope of the pathogen for the prospects of vaccine development and the finalized text was online available on February 3, 2020 as an “ahead of

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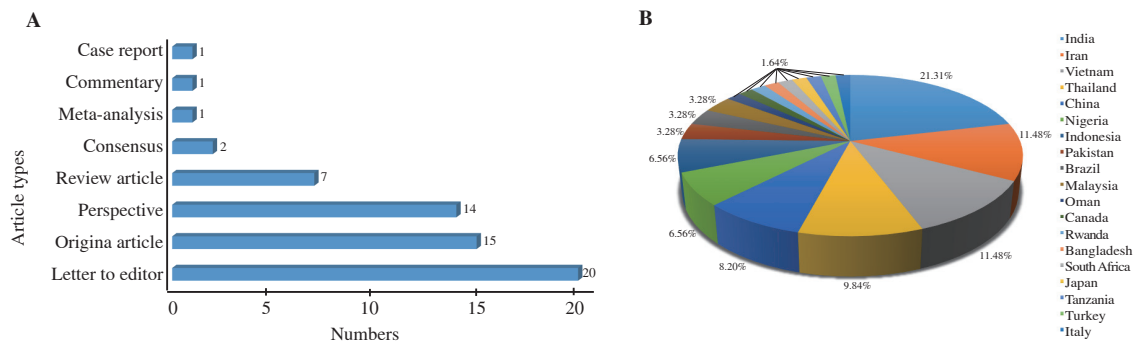


Figure 1. Distribution of articles published in *Asian Pacific Journal of Tropical Medicine* from 2020 to 2021. (A) Distribution of article types. (B) Distribution of countries.

print”[3]. Then, a large number of COVID-19 articles were submitted onto our online submission system. From 2020 to 2021, a total of 61 COVID-19 related articles were published in *APJTM*, accounting for 38.36% (61/159) of all the articles published in the interim. Among these articles, there are 20 letters to editor, 15 original articles, 14 perspectives, 7 review articles, 2 consensuses, 1 meta-analysis, 1 case report and 1 commentary (Figure 1A). The articles are widely distributed in the globe: India contributed 13 articles; authors from Iran and Vietnam published 7 articles each; 6 articles were from Thailand, 5 from China, 4 from Nigeria, 4 from Indonesia; Pakistan, Malaysia and Brazil contributed 2 articles each; Canada, Italy, Oman, Rwanda, Bangladesh, South Africa, Japan, Tanzania and Turkey, authors from each of these countries published 1 article in *APJTM* (Figure 1B).

Research priorities on COVID-19 have been evolving over time. During the early stage of the outbreak when knowledge about the virus was new and scant, *APJTM* reported letters and perspectives on COVID-19 epidemiology and surveillance data in different nations and regions. *APJTM* has also published articles that developed predictive and explanatory mathematical models to help clinical epidemiologists better understand the situation of outbreak so that they can plan for disease control and risk mitigation. Our investigations on healthcare workers’ perceptions of the COVID-19, psychological impact of the pandemic on the public, the willingness of vaccination, and the acceptance of vaccine prices, etc., all provided reliable basis and analysis for policy making. Later on, *APJTM* published articles on the evaluation of new therapies and treatments. Studies on vigorously tested drugs such as ivermectin and favipiravir, and side effects of COVID-19 vaccines were introduced in our journal. Articles that identifying the relationship between clinical symptoms and biochemical indicators with the severity of COVID-19, and cases collecting treatment of the COVID-19 associated complications and post vaccination effects, all will provide clinical evidence for the future treatment and research.

Furthermore, these 61 COVID-19 related articles have been cited more frequently than other articles published in *APJTM* from 2020

to 2021. Web of Science Core Collection showed that the study by Huynh *et al.*[4] aiming to assess the knowledge and attitude toward COVID-19 among healthcare workers in Ho Chi Minh City, Vietnam, has received 126 citations till December 17, 2021, which has become one of the most popular articles (33 499 viewed, 3 074 PDF downloaded till December 17, 2021).

The scientific community has been trying its best to catch up with the transmission speed of SARS-CoV-2. Up to the date (December 17, 2021) of writing this manuscript, 208 776 SARS-CoV-2 relevant literatures have been published in PubMed. Such a great volume of researches focusing on the same topic is unprecedented in the history of academic publishing. “We’ve never progressed so fast with any other infectious agent,” says virologist Theodora Hatzioannou at the Rockefeller University, USA[5]. From the current point of view, reports at the early stage of the pandemic seems to be just description of simple epidemiology, virology, mode of transmission, pathogenesis, diagnosis and anecdotal experiences. Some perspectives and discussions were not so insightful. Furthermore, studies might have a small sample size and a high risk of bias. But it is precisely because of these preliminary explorations and data accumulation that served as an initial point have accelerated the more in-depth researches. This situation is very similar to early studies on human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDs)[6].

In a case controlled study conducted by Zdravkovic *et al.*[7], it was stated that the scientific quality of COVID-19 and SARS-CoV-2 publications in the highest impact medical journals (*New England Journal of Medicine*, *The Lancet*, and *The Journal of American Medical Association*) during the early phase of the pandemic was lower than other articles in the same period. Many treatments did not have clinical data supporting their efficacy given the time lapse to develop evidence and the challenging logistics to conduct clinical trials at the time of the pandemic. It is true that preliminary researches on completely unknown diseases may have some biases and will surely suffer from the usual limitations of initial investigations. The scientific quality may be far from those researches which have

been studied for years or even decades. However, such preliminary researches represent the best available evidence at the time of publication. Science is subject to scrutiny and refutation and scientific evidence should be verifiable. Questions or doubts can be raised for a study after it was published, which lead to more vigorous studies to either support or refute its findings. It is precisely in this exploration that science is advancing. This is a necessary process. It is the situation when facing COVID-19, and it is the same when facing any other newly emerging disease.

It is now almost two years since the emergence of COVID-19, the impact of the COVID-19 on public health is in all aspects, involving different areas of knowledge and various disciplines, and we have made great strides and advances in understanding and treating COVID-19. Our lives gradually go back to the track after the lockdowns or restrictions, while health systems are still adjusting to the pandemic situation. Researches on the COVID-19 will continue, and debate will also continue about the effectiveness of treatment strategies before definite trial data become available.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

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Authors' contributions

Y.P. conceived the study and Q.Z. did the data collection. Q.Z. and Y.P. drafted and revised the manuscript together. Both Q.Z. and Y.P. contributed to the final version of the manuscript. Y.P. supervised the manuscript.

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