

Title:

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Retractions relevant to COVID-19: does the retraction rate jump during the pandemic?

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Dear Editor,

The coronavirus disease 2019 (COVID-19) pandemic is of great concern worldwide. Recently, a large volume of research on COVID-19 has been published, reflecting the efforts made by the scientific community to tackle the crisis. However, the flood of research articles raised concerns that there might be an excess of low-quality work and even some misinformation (1,2). Given that the number of and reasons for retraction could somehow reflect how pure the scientific research is, the present study aimed to examine the characteristics of retracted articles pertaining to COVID-19 to provide some insight into the scientific publishing of COVID-19

literature.

The Retraction Watch database (<http://retractionwatch.com>) has been consciously tracking retractions about COVID-19 and was chosen to perform data collection. Searches were conducted on 10 March 2022 to acquire retracted articles pertaining to COVID-19. The total number of COVID-19 publications was obtained from the World Health Organization (WHO) COVID-19 database (<https://search.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/>).

A total of 218 retracted papers were identified. The number of global publications on COVID-19 hosted in the WHO database was 538,121 as of 10 March 2022. Hence, the retraction rate of COVID-19 papers was about 0.04 %. Of the 218 papers, 32.6 % were retracted or withdrawn due to unclear reasons; 9.6 % were due to errors by publishers and 9.2 % due to honest mistakes made by authors. Retractions only owing to issues of reliability accounted for 15.6 % of all articles. Misbehavior by authors comprised the rest (33 %), in the form of duplication, fake peer review, fraud and breaches of other ethical or procedural guidelines. Notably, one author could simultaneously commit several kinds of misbehavior. Details are shown in figure 1.

Our results demonstrated that the retraction rate of COVID-19 literature was far lower than a previous estimate of 0.074 % as of 8 June 2020 and consistent with the baseline of 0.04 % (2,3). According to retraction guidelines, notices of retraction should state who retracted the article and the reasons for retraction, and should be linked to the retracted articles wherever possible (4). However, our study demonstrated that nearly one-third of articles were retracted or withdrawn with retraction notices giving limited information or even without notice, and the full text was not available for over 40 % of retractions. With regard to retraction reasons, a previous study evaluating the retracted articles in the field of gastroenterology reported that a substantial proportion of retractions were due to misconduct, which included, in addition to scientific fraud, duplication, lack of approval, compromised peer review, etc. (5). Notably, our findings also demonstrated that retractions due to scientific fraud only comprised 4.6 % of all articles, whereas compromised peer review, duplication and other less questionable research practices including lack of ethical approval, failure to disclose potential conflicts of interest and authorship

disputes were more common.

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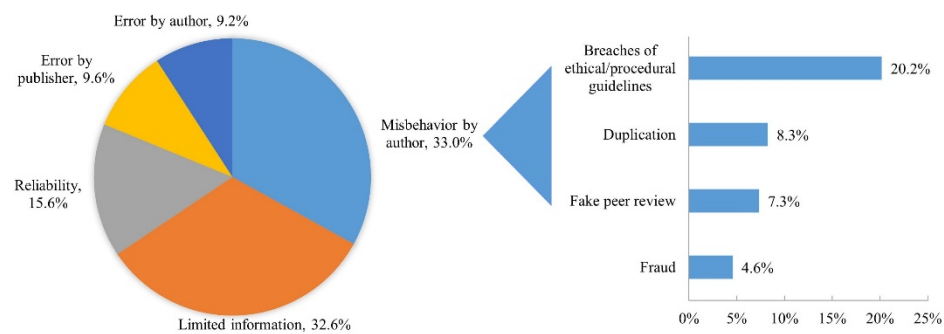


Fig. 1. Proportions of retractions for different reasons of the 218 papers.