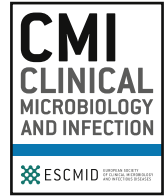




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## Letter to the Editor

## Refocus attention on HIV/AIDS: due to neglect during the COVID-19 pandemic

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## To the Editor:

The COVID-19 pandemic has posed huge challenges to the daily life of people around the world and has had a major influence on the research work of biomedical researchers. Many researchers and health workers have shifted their focus to COVID-19 in response to national emergency management of COVID-19 prevention and control. The government control measures and patients' psychological worries disrupted the routine health services, as well as the patient recruitment and study follow-up of other researches besides COVID-19. Biomedical research publications had been dominated by COVID-19-related studies over the past two years, and publications on other top diseases in the spotlight fell sharply [1]. Among the five diseases (e.g., breast neoplasia, human immunodeficiency virus (HIV)/AIDS, obesity, lung neoplasia, and type 2 diabetes) with the most research publications during ten years before the pandemic, the only infectious disease is HIV/AIDS [1]. As professional HIV/AIDS researchers, we conducted a bibliometrics study to evaluate the neglect of HIV/AIDS during the COVID-19 pandemic.

We extracted the journal impact factors (JIF), JIF rank, and quartile (Q1 to Q4) of 93 journals included in the "INFECTIOUS DISEASES" category of Science Citation Index Expanded [2] (see [Supplementary material, Table S1](#)). We also selected the top

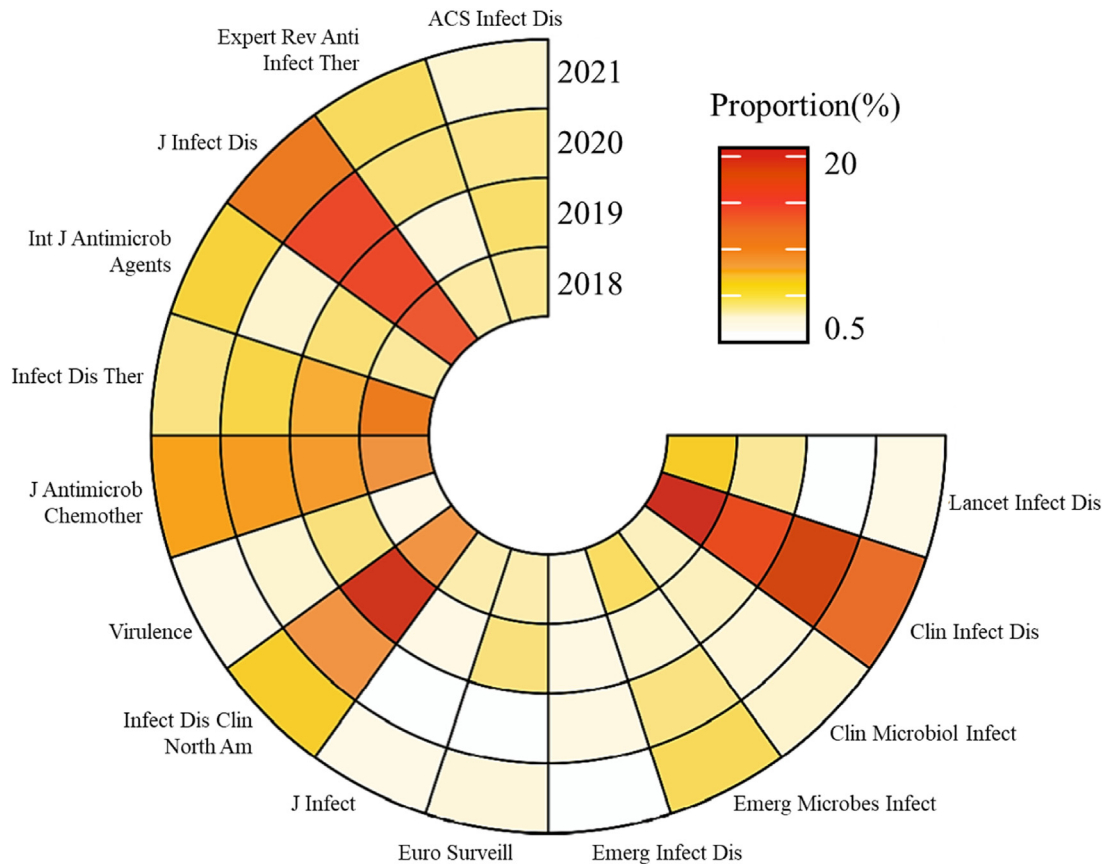
infectious diseases journals (JIF quartile Q1) from the 93 journals and searched PubMed to obtain the number of HIV/AIDS-related publications and COVID-19-related publications from 2018 to 2021, respectively (see [Supplementary Text for search strategy](#)). The proportion of HIV/AIDS-related publications and COVID-19-related publications in these journals were further calculated. The values of these indicators before and during the COVID-19 pandemic were compared for quantitative evaluation. Paired Student's *t*-test was used for normally distributed data, whereas a Wilcoxon signed-rank test was used for non-normally distributed data. A two-sided  $p \leq 0.05$  was considered statistically significant. Statistical analyses were performed with SPSS for Windows version 21.0 (IBM Corp., Armonk, NY, USA).

We found the neglect in two aspects based on bibliometrics analysis. Eighteen out of the 93 journals mainly focused on HIV/AIDS and sexually transmitted disease researches. The JIFs of these specific HIV/AIDS and sexually transmitted disease journals did not show significant differences between 2019 and 2020 ( $p = 0.093$ ), including only four journals with direct decline in JIF. However, the 2020 JIF ranks of these journals were significantly lower than their 2019 JIF Ranks ( $p = 0.024$ ), among which 13 journals showed a direct decline with a maximum of 22 places behind (see [Supplementary material, Table S2](#)).

After excluding four specific HIV/AIDS journals and four journals that published less than three HIV/AIDS-related publications each year from the 23 Q1 journals, 15 top comprehensive infectious diseases journals were analysed. The proportions of HIV/AIDS-related publications in these journals were significantly lower during COVID-19 pandemic (2020 through 2021) compared with the pre-pandemic period (2018 through 2019) ( $p = 0.015$ ), among which most journals (12/15) presented a direct decline with a maximum decline of 7.4% (Proportion<sub>2018–19</sub>: 14.2% (18/127) vs. Proportion<sub>2020–21</sub>: 6.8% (8/117)). The COVID-19-related publications were indeed dominant and accounted for more than 30.0% publications in six of the 15 journals in the past two years with a maximum proportion of 65.5% (789/1205) ([Fig. 1](#) and [Supplementary material Table S3](#)).

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**Fig. 1.** Proportion of human immunodeficiency virus/AIDS-related publications in the top comprehensive infectious disease journals from 2018 to 2021.

Our findings objectively described the neglect of HIV/AIDS-related research during the COVID-19 pandemic by bibliometrics analysis. One reason for the neglect was that research could not be carried out temporarily due to policy measures during the lockdown period [1]. The reduction in funding for HIV/AIDS research to support COVID-19 research was also an important reason [1,3], which not only led to delay or disruption to research not related to COVID-19, but also influenced researchers to shift their research topics. As a negative consequence, the neglect of HIV/AIDS research and patient management might further increase the vulnerability and inequality of people living with HIV and high-risk populations and increase uncertainty about trends in the HIV/AIDS epidemic especially for low- and middle-income countries. Previous studies indicated that HIV prevention services, such as voluntary medical male circumcision, were disrupted widely in priority countries in Africa [3]. The countries reporting on HIV/AIDS treatment disruptions due to COVID-19 were concentrated in low- and middle-income countries in Asia and Africa, with nearly no European countries reporting the disruptions [4]. The COVID-19 pandemic has the potential to distance us even further from the goal to end AIDS by 2030 [5].

Although the neglect of HIV/AIDS research during the COVID-19 pandemic could be problematic, the unique lessons from the COVID-19 campaign would provide researchers with new ideas and approaches on further HIV/AIDS control and researches. People's awareness of health protection and self-responsibility for health has been aroused during the pandemic. On the other hand, because of the lockdown and the closure of offline medical services, e-health methods and tools developed rapidly and people's acceptance has increased [6]. These two aspects will provide new opportunities for recruitment and patient management in future HIV/AIDS research.

Therefore, in the post COVID-19 era, it is time for HIV/AIDS researchers to draw their attention back from COVID-19 so that HIV/AIDS research may experience a resurgence and start in a new way.

#### Transparency declaration

All authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

#### Author's contributions

XY, BZ and ZJ conceptualized the study. XY, XW, LW, and BZ collected, analysed, and interpreted the data. XY, XW and LW conducted the statistical analysis. XY and ZJ wrote the first draft of the manuscript. All authors revised the manuscript and approved the final version. BZ and ZJ had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.cmi.2022.06.011>.

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