

COVID-19, Sanctions, and Importance of Scientometric and Systematic Review Studies in Iran

The coronavirus disease 19 (COVID-19) epidemic serves as a stark reminder that pandemics, similar to other unexpected diseases, have occurred in the past and will continue to do so in the future.^[1] In the fight against the virus, healthcare professionals and scientists are on the front lines. Furthermore, because of the complexities of COVID-19, this epidemic has caused havoc in the scientific community. The COVID-19 outbreak has had a significant detrimental impact on the scientific community, forcing the closure of universities, research institutes, and laboratories. Most scientific activities, including national and international conferences, symposiums, seminars, and training programs, have been canceled or postponed.^[2,3]

The COVID-19 pandemic has put a significant burden on the clinical research sector and is expected to impact key study findings. During the early phases of the pandemic, most investigations came to a halt. Both researchers and participant populations appreciate remote intervention through phone, email, and the electronic health record portal, which might impact key study outcomes.^[4] The COVID-19 pandemic has had a tremendous impact on Iran. The virus spread over all 31 provinces of the country, resulting in the highest number of cases and deaths among the 22 Eastern Mediterranean nations.^[5]

Several actions were taken to prevent the spread of the disease immediately after the first outbreak in Iran (March 23, 2020), including curfew and city lockdown, closure of religious places (e.g., mosques and holy shrines), schools, universities, offices, and the judiciary system, which resulted in the outbreak temporarily declining.^[6] Iran is subject to further restrictions as a result of the sanctions, which has exacerbated the situation.^[7]

Several variables influenced the status of scientific research initiatives after Iran's revolution in 1979. The Iran-Iraq war in 1980-88 changed Iran's strategy toward allocating financial resources for educating physicians and paramedics rather than research initiatives; brain drain (i.e., emigration of educated individuals) and sanctions were among these causes.^[8] Iran's inability to export oil and the country's financial and economic woes have resulted in a reduction in the country's research budget, which is anticipated to continue in the future years. Iranian health research institutes are substantially reliant on government funding. Because of the current economic problems, funds and research grants are delayed in being paid to researchers and research institutes.^[9]

Previous studies have found that Iranian academics struggle to get high-quality resources and equipment for their research projects and to conduct unique research. Previous studies

also revealed the challenges of accessing laboratory materials during sanctions.^[10,11] Sanctions have mostly limited the ability to purchase laboratory equipment and supplies.^[12]

Researchers conducting secondary studies such as systematic reviews and meta-analyses and scientometric studies do not need to acquire materials or equipment or operate in research centers or laboratories. Despite COVID-19 sanctions and barriers, guiding researchers to secondary studies, including systematic review and meta-analysis (SR/MA), seems to lead to credible evidence and turns this challenge into an opportunity. On the other hand, Iranian educational policymakers should support scientometric and SR/MA research projects and publications less influenced by economic sanctions and the COVID-19 epidemic. Supporting researchers who are active in SR/MA studies, being involved in international collaboration, and adopting research grants for conducting SR/MA studies can be a way to support secondary studies.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

**Zeinab Hemati, Shayesteh Jahanfar¹,
Mojtaba Keikha²**

Department of Pediatrics, Child Growth and Development Research Center, Research Institute for Primordial Prevention of Non-Communicable Disease, Isfahan University of Medical Sciences, Isfahan, Iran, ¹Department of Public Health and Community Medicine, Tufts University School of Medicine, Boston, USA, ²Department of Public Health, Sirjan School of Medical Sciences, Sirjan, Iran

Address for correspondence:

*Dr. Mojtaba Keikha,
Department of Biostatistics and Epidemiology, Faculty of Public Health,
Kerman University of Medical Sciences, Kerman, Iran.
E-mail: mr.mojtabakeikha@gmail.com*

Received: 28 Oct 21 **Revised:** 12 Dec 21

Accepted: 14 Jan 22 **Published:** 11 Oct 22

References

1. Donthu N, Gustafsson A. Effects of COVID-19 on business and research. *J Bus Res* 2020;117:284-9.
2. Coronavirus lockdown: What I learnt when I shut my cancer lab in 48 hours. Available from: <https://www.nature.com/articles/d41586-020-00826-7>. [Last accessed on 2020 May 25].
3. Events postponed or canceled as MIT responds to COVID-19. Available from: <http://news.mit.edu/2020/events-postponed-canceled-covid-19-0309>. [Last accessed on 2020 May 23].

4. Tuttle KR. Impact of the COVID-19 pandemic on clinical research. *Nat Rev Nephrol* 2020;16:562-4.
5. Venkatesan P. COVID-19 in Iran: Round 2. *Lancet Infect Dis* 2020;20:784.
6. Raoofi A, Takian A. COVID-19 pandemic and comparative health policy learning in Iran. *Arch Iran Med* 2020;23:220-34.
7. Abdoli A. Iran, sanctions, and the COVID-19 crisis. *J Med Econ* 2020;23:1461-5.
8. Rezaee-Zavareh MS, Karimi-Sari H, Alavian SM. Iran, sanctions, and research collaborations. *Lancet* 2016;387:28-9.
9. Dehghani M, Mesgarpour B, Akhondzadeh S, Azami-Aghdash S, Ferdousi R. How the US sanctions are affecting the health research system in Iran? *Arch Iran Med* 2021;24:101-6.
10. Mozafari M. Iran and science publishing in the post-sanctions era. *Lancet* 2016;387:1721-2.
11. Takian A, Raoofi A, Kazempour-Ardebili S. COVID-19 battle during the toughest sanctions against Iran. *Lancet* 2020;395:1035-6.
12. Bezuidenhout L, Karrar O, Lezaun J, Nobes A. Economic sanctions and academia: Overlooked impact and long-term consequences. *PLoS One* 2019;14:e0222669.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code: 	Website: www.ijpvmjournal.net/www.ijpm.ir
	DOI: 10.4103/ijpvm.ijpvm_462_21

How to cite this article: Hemati Z, Jahanfar S, Keikha M. Covid-19, sanctions, and importance of scientometric and systematic review studies in Iran. *Int J Prev Med* 2022;13:127.

© 2022 International Journal of Preventive Medicine | Published by Wolters Kluwer - Medknow