

US political sanctions on Iran curtailing global scientific progress

Detrimental to international collaboration and nations' ability to respond to health crises

The political sanctions imposed on Iran by the US are curtailing global scientific progress, suggests an analysis published in the online journal ***BMJ Global Health***.

Iranian scientists have been denied opportunities to publish their findings, attend meetings, and access essential supplies and information, to the detriment of international collaboration and nations' ability to respond to health crises and narrow inequalities, say the analysts.

The rates of international scientific and research collaboration have risen sharply in recent decades. But they are vulnerable to political sanctions and academic boycotts, which are increasingly being used as an alternative to armed conflict, the analysts point out.

In 2010 Iran faced UN Security Council sanctions over the development of its nuclear programme. In 2015 an international agreement was reached with various world powers, including the US, to lift sanctions in return for a significant reduction in nuclear activities and facilities.

However, in May 2018 the current US administration withdrew from this agreement and reinstated sanctions, but with the added threat of criminal prosecution for any US citizen collaborating with Iranian entities.

The economic and health impacts of sanctions have been far reaching, extending to the greater Middle East region and affecting research and publishing as well.

Iran ranks 3rd in the world for science and engineering graduates and for tertiary education; 12th in the world for knowledge impact; and 32nd for science and technical publications. As recently as 1996 it ranked first in the world for international collaboration on published research. But in 2017 it was last.

In many countries, economic hardship has been associated with a blossoming in international research collaboration, but not in Iran, despite its increased research output during the last period of sanctions, say the analysts.

This was partly due to the regime's support for the development of internationally recognised journals and the willingness of 'lower visibility' journals to publish Iranian authored research, they explain.

There has also been steady growth in scientific innovation, productivity, knowledge impact and patents.

But the blockade on currency exchange has prevented the payment of fees for publishing open access articles, registration at conferences, and membership of professional organisations.

And it has prompted many high impact journals and publishers to refuse to handle research papers from Iran. This in turn stymies academic career development, note the analysts.

“Being blocked from publishing, forced to publish in lower impact journals and obstructed from presenting at international meetings prevents or delays academics from reaching institutional benchmarks for career advancement,” they write.

The effects of sanctions have also extended to clinical trials sponsored by foreign agencies, which have been stopped or suspended.

With the 2015 agreement, the hope was that all this would have been reversed, but the analysts state: “..the US withdrawal from the agreement and subsequent new sanctions has again derailed scientific progress.”

And they emphasise: “Available evidence suggests that academic boycotts are not successful tools to achieve political ends,” but they do affect the healthcare of the vulnerable and disadvantaged.

“We conclude that academic boycotts violate researchers’ freedoms and curtail progress. Free exchange of ideas, irrespective of creed, is needed to optimise global scientific progress.”