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Viewpoint

Open-access publishing: Boon or bane for Indian medical researchers?

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ABSTRACT

The concept of Open-Access (OA) publishing was initiated in the early 2000s with the idea to provide free, equal, and OA of scientific knowledge to all communities and countries. The article published in an OA journal is freely available on the public internet and permits any users to read, download, copy, distribute, and print. The OA articles are published much sooner and are believed to get more citations than the articles published in subscription-based journals. Since the end-user does not have to pay to read an OA article, the author usually pays Article Processing Charges (APCs) to get his/her work published in OA journals. High APCs of OA journals are usually a serious concern for medical researchers in India, which restricts them to publish in OA journals. Since most OA journals are new, they tend to have low impact factors as compared to subscription-based journals, which prevent many good researchers to get their work published in OA journals. Furthermore, predatory journals exploit the idea of OA and tend to publish poor or very low-quality research papers. This has resulted in distrust among the authors and readers that OA publishing is not peer-reviewed or has low quality. In conclusion, publishing in OA journals has both pros and cons. With the Government of India's ambitious "One Nation, One Subscription" policy in the pipeline, medical researchers in India are hopeful that soon both access and publishing in scientific journals will be free for all in the country.

Keywords: India, Medical, Open-access, Publication, Research

INTRODUCTION

The idea of "open-access" (OA) refers to the free availability of results of research in the form of scholarly articles. This access to information is usually available in electronic form through the internet.[1] The OA movement was initiated in the early 2000s mainly by the Budapest OA Initiative, the Bethesda Statement on OA Publishing, and the Berlin Declaration on OA to Knowledge in the Sciences and Humanities, with an idea of free, equal, and OA of scientific knowledge to all communities and countries.[2] For authors, OA can be achieved by either publishing their research results in OA journals ("gold access") or by depositing the copies of their research papers in OA repositories ("green access"), also known as self-archiving.[1] At present, there are mainly three types of scientific journals: Subscription-based (only the subscriber gets access to the scientific knowledge), OA journals (author pays to make his/her publication available free for all), and hybrid journals (the author has the option to choose between subscription-based or OA publication of his/her article). As a result of intensive promotions of OA movements and the rapid rise in internet connectivity and the ability to digitize print, the growth of OA journals has been unprecedented.[3] Over the past decade, over 4000 OA journals have been launched with central resources such as the Directory of OA Journals (DOAJ) and OAlster.[2] India is one of the countries with the highest numbers of OA journals in the world.[4]

One of the main aims of starting the OA movement was to make the scientific knowledge from the developed countries available to the researchers in the developing countries since the latter have limited resources.[1] It is believed that the traditional "subscription-based" model puts a barrier between the research results and their potential audience.[5] By publishing the scientific results in OA journals, any researcher across the globe would get unrestricted access to knowledge and, thus, would help in developing further research opportunities. The article published in an OA journal is freely available on the public internet and permits any users to read, download, copy, distribute, and print. A previous study has shown that full-text downloads and numbers of visitors of OA articles were 89% and 23% higher, respectively than those of subscription-based articles.[6] The

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OA articles are published much sooner than the articles in subscription-based journals. This is particularly important concerning clinical journals, where timely release of new data can have a positive impact on patient care.[7] The author also benefits from publishing in OA journals, as the chances of his/her work getting cited in any subsequent research increases, where the new author relies on the previous research findings.[7] The more citations an author gets, the more his/her impact in that field of research, although this may vary by field and journal.[8]

Despite these benefits of OA journals, there are many concerns related to OA journals for researchers from developing countries like India. Even though the end-user does not have to pay to read an OA article, someone has to bear the cost of publishing an OA article. It is usually the author, who has to pay for Article Processing Charges (APCs) to get his/her work published in OA journals. Although some OA journals provide discounts on APCs to researchers from low- and middle-income countries, for most of the OA journals APCs are disproportionately high, which is a serious concern for many researchers in India with limited funding.[9] At present, many OA journals charge APCs as high as INR 2-3 lakhs per article. This restricts the researchers from developing countries like India to publish in these journals. In a recent study, it has been shown that 76% of Indian medical researchers were not interested in paying APCs due to limited funding.[4] Consequently, researchers with "handsome" funds or from "developed" countries have an edge to publish in OA journals, as they can pay high APCs. Over a while, this will increase the scientific knowledge gap between the developing and developed countries and, thus, will defeat the very purpose of starting the OA movement. Since medical science journals are the highest in numbers in OA journals,[1] medical researchers are going to bear the brunt most. With many once-traditional journals adopting OA policies, it is becoming increasingly difficult for medical researchers from India to publish in these journals. In addition, the fact that most OA journals depend on APCs for publications may result in biases in the favor of researchers from developed countries, who can easily pay APCs as compared to the researchers from developing countries.[1]

The reputation of a scientific journal is often judged by the impact factor of the journal. Researchers across the globe are often ranked by the number of publications they have in high-impact factor journals. It takes a considerable time for any journal to build a high-impact factor. Since most OA journals are new, they tend to have low impact factors as compared to subscription-based journals. This may restrict the medical researchers from India, who would want good academic positions, job promotions, and prestigious research funding, to publish their research work in OA journals. As OA journals run on a "business" model basis, a large proportion of the revenue of these journals comes from APCs. This may discourage the researchers from publishing as it may have a negative impact on the overall quality of the publication.

Another concern is that most predatory publishers exploit the idea of OA and charge publication fees, in the name of OA publication, and tend to publish poor or very low-quality research papers.[9] Thus, predatory publishers have caused distrust among the authors and readers that OA publishing is not peer-reviewed or has low quality.[10] It is to be noted that all predatory journals are OA journals, but all OA journals are not predatory. In this scenario, it becomes difficult for a researcher to differentiate between a predatory journal and a non-predatory OA journal. The scenario becomes even more difficult for a Ph.D. student who has to mandatorily publish three research papers for the award of the Ph.D. degree in India. As a result, in the name of OA, many authors tend to get their research work published in predatory journals. This is important when the number of publications in predatory journals are constantly increasing in India.[11] Given the fact that India has one of the highest numbers of OA journals in the world, it would be interesting to know how many of them are listed in DOAJ and are a member of the OA Scholarly Publishers Association.

The OA publishing has caused both some ease and unease among the authors, especially in India. This is more important when India was the third-largest producer of science and engineering articles in the world in 2018, publishing more than 135,000 documents.[9] It is worth mentioning here that the Government of India is pushing for a bold nationwide "One Nation, One Subscription" policy developed by the Office of the Principal Scientific Adviser to the Government of India and the Department of Science and Technology; in which if successful would make scholarly literature freely accessible to more than 1.3 billion population of the country. Countries such as Germany and Uruguay already have nationwide journal subscriptions that allow all their citizens access to international research, but it would be challenging to negotiate with the publishers to agree to discounted rates for a population of India's size.[9] Nevertheless, the latest proposal of the government favors "green OA" for all researchers in the country.[9] While some advocate that the government should pay the APCs for respectable OA journals for its researchers, others argue that public funding cannot be used for the same.[9]

CONCLUSION

There are both pros and cons of OA publications. Undoubtedly, OA publishing opens up boundaries for more knowledge sharing, research opportunities, and collaborations, but paying for research publication is not a good idea for a country like India, where resources are

scarce.[4] At present, the hybrid journals present the best fit for Indian medical researchers, which provide the best of both worlds. The practice of knowing the will of the authors to publish in OA "mode" by most hybrid journals even before the peer-review must be discouraged as it may lead to biases in acceptance of the article in the journal. With "One Nation, One Subscription" policy in the pipeline, medical researchers in India are hopeful that very soon the time will come when both access and publishing in scientific journals will be free for all in the country.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

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