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Editorial

Scientific publications – Unscientific demeanor: Where are the problems?

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“Try not to become a man of success, but rather try to become a man of value” – Albert Einstein

The above quote best illustrates the basic ethos required in scientific research and publications. Scientific research and publications are the bedrock for growth and development of scientific knowledge. The last decade, particularly the last five years, have witnessed unprecedented and sharp rise in the number of biomedical scientific publications. At the same time, there has been great concern in the scientific community about the reportedly rising number of retractions mostly because of scientific misconduct.^{1,2} With the rush to jump on the publication band wagon, research integrity and publication ethics are being relegated to a backseat. The reasons for increasing publication misconducts are possibly multifactorial. Authors, Reviewers, Editors, and Publishers, all have their role both in the propagation and prevention of such scientific misconduct. Let us look into the pros and cons of these maladies that afflict scientific writing.

In recent times, there has been a sharp rise in the quest for publications amongst the scientific fraternity. Career progression and research grants in academic institutions have been linked to a mandatory minimum number of research publications in a stipulated academic cycle in many countries, including India. Increasingly, there is a palpable pressure on healthcare professionals for the desperate need of research publications to survive in the world of “Publish or Perish” truism. Scientific publications are being added in the existing database at an unprecedented pace. Many stakeholders view the entire process as a ‘publication industry’ with vested commercial interests and a relative disregard for credibility.

Publications in biomedical journals can be of one or more of the following categories: case reports, images in medicine, short/brief communications, original article, review article, commentary, etc. A basic question that bothers many of us is what should constitute a research publication? Can a case report or correspondence or short/brief communication/review article/contemporary issue be considered as a research publication? Unfortunately, there is no straight answer to this question. It is well known that many important research questions had case reports/case series as their initiating point. A beginner may find it easy to start with a case report or short/brief communication and then move onto original research and publication of research articles. Review articles, contemporary issues, commentary, etc., are usually written by experts who have adequate firsthand experience in a particular field. However, the present emphasis seems to be mainly for original research articles. Therefore, one might ponder that if case reports and similar publications do not have any significance then why take the trouble of publishing such categories of articles at all? Besides, it is not easy to find a platform for publishing case reports as majority of the recognized journals have a low priority and a long queue for case reports. Seemingly, the situation may not be so grim for those who believe that case reports are still relevant. New avenues have opened up for those who wish to publish case reports in journals meant exclusively for case reports, although often entailing a payment by the authors.

It would probably be prudent to evolve a scoring system for various types of publications in hierarchical manner so that all types of scientific writings will retain their relevance and yet have their relative importance. This approach will help the young authors to build up their confidence level by publishing

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articles like case reports/series and short communications and graduate on to original articles. One must realize that, doing an original research needs time, infrastructure, finance, conducive work environment, and most importantly a scientific temperament. A mad rush for original research and publication may end up with ethical compromise like data manipulation/falsification, fabrication, simultaneous/duplicate submission/publication, salami slicing, conflicts of interest issues, and plagiarism. Various issues related to plagiarism, detection of plagiarism with professional plagiarism detection tools, and role of authors and editors in the prevention of plagiarism have been comprehensively dealt with by Debnath in this issue of the journal.³

In many countries including India, healthcare professionals are mainly involved in patient care, which is considered as the primary goal. Medical research forms a secondary goal and at times a healthcare professional who is not well motivated for the same takes up a research project under some compulsion. In such a scenario, it becomes an uphill task to balance between day-to-day clinical practices and carry out a prospective study. On the other hand, it is not very difficult to carry out a retrospective study if one has a good database. A prevalent notion amongst the many authors is that original research publication means only a prospective study, which is factually incorrect. Publications based on retrospective observations are equally important. Therefore, a busy clinician may be advised that patient care and concurrent meticulous record keeping are possible and can provide a sound database from which retrospective studies can emanate.

An assured and rapid publication without any probing of the aspiring authors in a new and upcoming journal albeit with article processing charges has led to the unhealthy trend of 'Predatory Journals.' In the long run, such articles run the risk of being retracted apart from constituting substandard material. It is quite common these days to get emails from sundry journals soliciting manuscript submissions promising a quick review as well as publication, often at an author fee. Although the offers seem very tempting, authors need to be very clear about the authenticity of the claims before falling prey to such journals, whether paid or free. It is important to understand that no self-respecting journal will solicit manuscripts indiscriminately and that too with a string attached. The issue of predatory journals, paid journals, how to choose the right journal, and a word of caution for aspiring authors are discussed at length by Cariappa et al.⁴

The classical double-blind peer review system has come under criticism, for being a time-consuming process, besides other issues, in the face of desired rapid turnaround time for authors as well as editors. Pros and cons of various alternative and emerging issues in the peer review process, including peer review fraud, have been explicitly deliberated by Das in an article published in this issue of the journal.⁵

Another area that bothers the authors as well as regulating authorities is the issue of publication in the indexed journal. While indexing is meant for quality control of a journal, it is not clear as to which indexing agency is to be considered sacrosanct for such quality control purposes. There are a large number of

indexing agencies, many of which have questionable quality control or are not even recognized in the academic circle. An author is likely to be misled by the claims made by many journals, particularly newly raised journal, about the extent of indexing agencies displayed on home page of their website. Many authors would be unaware of the fact that a number of so-called indexing agencies at best can be termed as repositories. There are very few internationally reputed and well-established indexing agencies, which includes Medline, Thomson Reuters Journal Citation Reports, and Scopus by Elsevier. The issue of indexing has also been elaborated by Cariappa et al.⁴

Another enthralling yet conflicting issue is that of impact factor. Impact factor, which is essentially a statistical parameter used to measure a journal's performance, is not free from fallacies. There are very few internationally recognized agencies that provide authentic impact factor, e.g. (a) Impact factor used by Thompson Reuters Journal Citation Reports, (b) Eigen factor used by Thompson Reuters Journal Citation Reports, and (c) SNIP/SJR used by Elsevier Scopus. Alternative agencies who claim to provide impact factor are coming up at a fast pace. A lot of upcoming journals market themselves well with so-called impact factor from various agencies, many of which have questionable credibility. Authors need to be aware of such dubious claims by journals.

Yet another contentious issue is about what qualifies as an international journal. Does the prefix 'International' in the name of a journal makes it truly international? Or, any journal published outside a country should be considered international journal for that country. There are enough journals published in any country labeled as international journals with questionable quality of contents. On the other hand, in today's context, any journal that is available and accessible online can be considered an international journal rather than defined by geographic boundaries. In fact, the categorization of National and International Journal is blurred at best.

This editorial has aimed to focus upon ethical scientific writing and acquaint aspiring authors with the pitfalls that can vitiate the credibility and quality of publications. Perhaps, it is high time we introspect.

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