

## A Writer's Dilemma: Where to Publish and Where not to?

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Journals are the essence of scholarly communication. They not only serve to disseminate latest scientific advancements but also provide a platform for archiving scholarly information for future reference, and allow a researcher to assert his scientific mettle. Selecting the most suitable journal to showcase one's scholarly work is no mean feat. With more than 43,000 biomedical journals listed with PubMed [1], the database maintained by United States National Library of Medicine (NLM), this exercise can easily flummox an inexperienced researcher. The huge risk of rejection of a paper from a journal that is not the right fit, and a widening web of dubious and predatory journals which publish almost everything sent to them, make this task particularly daunting.

### WHERE TO PUBLISH?

The aim of clinical research is to bring about a positive change in practice and policy so that the mankind is benefitted by the advances of medical science [2]. Therefore, unless the research work gets published and reaches its target audience, the entire exercise can be futile. Failure to choose the appropriate journal results in rejection and wastage of precious time, and slow career progress for the researcher. To facilitate the process of selecting the most appropriate journal, we need to consider the following variables (**Box 1**):

*Focus:* Every journal targets a certain audience and has a certain focus. On the basis of their focus, journals can be categorized as: broad-specialty vs specialty journals, pure research vs applied science journals, qualitative research vs quantitative research journals, veterinary (animal) science vs human science journals, etc. Likewise, some journals may have a more local and regional appeal, while others may have a more global readership. Specialized journals, even with a potentially smaller readership, may disseminate your work more efficiently to your desired audience than a broad-specialty journal. It is important to remember that we should not only be interested in getting our work

published, but also aim to get it noticed by the right audience. Therefore, it makes sense to publish data pertaining to a regional community in a local journal where it may influence the practice and policy rather than publishing in a 'reputed' international journal that is seldom referred to by the endusers. For example, a research work evaluating the predictors of mortality in children suffering from dengue fever in an urban belt in India would be better appreciated and read in a journal popular (and published) in India rather than a foreign journal with very limited circulation in the region of the origin of work.

The focus of the journal is usually stated on the journal's home page under the heading 'scope of the journal' or in the instructions to authors. A look at the recent issues of the journal will also give you an idea of the journal's area of focus. It is important to ascertain the harmony between the theme of the manuscript and focus of the journal before submission, as a mismatch between the two is one of the leading causes for outright rejection of the manuscript.

*Indexing status:* Indexing of a journal in a citation database is a property by the virtue of which articles published in it become searchable in that database [3]. The content published in the journal is indexed at the article level by assigning keywords, and then making

### BOX 1. VARIABLES TO CONSIDER FOR CHOOSING A JOURNAL

- Focus/Scope
- Indexing status
- Impact factor
- Peer-reviewed
- Affiliation to scientific societies
- Publication frequency
- Publication fees
- Accessibility
- Time to publication/Early online version

them searchable in the database. Other bibliographic elements of journal articles, including authors' names, title of the article, journal name, and date of publication, are also used for indexing.

Index Medicus was the most widely accepted and comprehensive database of biomedical journals from 1879 until 2004. With the rapidly increasing number of journals, the printed publication Index Medicus was replaced by its online version 'Medline' in 2005. Among the major databases for biomedical journals, indexing by Medline is considered as a benchmark of high quality for a journal. Over the years, other databases like Embase, Scopus, Science Citation Index, Directory of Open Access Journals, and many regional databases have emerged. Remember Google, Google Scholar and Sherpa-Romeo are not citation databases!

However, indexing of a journal comes with its own problems. Inclusion of a journal in a reputed indexing database depends on its scientific merit and rigorous publication policy and ethics, and therefore not all journals get indexed. Several regional and national journals, published in native languages, fail in their attempt to be indexed in the international databases. We must remember that not all research is relevant globally, and some may only be suited for publication in a regional or national journal that may not be indexed. Therefore, although important, indexing should not be used as the sole criterion for choosing the journal.

Despite the fallacies of indexing, it continues to be a major tool for assessing the merit of scientific publications. The recent Medical Council of India (MCI) guidelines recommend that publications indexed in Scopus, PubMed, Medline, Embase/Excerpta Medica, Index Medicus and Index Copernicus should be considered for promotions of teaching faculty in medical colleges [4]. This has generated considerable debate amongst medical fraternity as indexing databases like Science Citation Index and IndMed have been overlooked whereas a database with questionable integrity – Index Copernicus – has been included [4]. These MCI recommendations raise some important questions: 'Whether an indexed journal should be preferred over a non-indexed journal with a high potential of influencing change in practice and policy', 'Which indexing database is valid,' and 'Whether publications should be evaluated for scientific merit by indexing status of the journal rather than peer review?'

**Impact Factor:** Another parameter – the impact factor (IF) – is often used as a proxy for the relative importance of a journal within its field, and is frequently over-rated. IF of a journal is the annual measure of the extent to

which articles published in that journal are cited. IF is awarded to the journals indexed in Science Citation Index, published annually in *Thomson Reuters Journal Citation Reports* [5]. However, IF must be interpreted with caution as its calculations are prone to manipulation [6]. Editorial policies such as preferential publication of review articles and articles dealing with newer diagnostics and therapeutics, short publication lag, and excessive self-citation can magnify the IF. English language journals and Basic sciences journals have higher impact factors. Abuse of the IF and the dominance of the prominent journals is a threat to the smaller and non-English language journals, and is akin to the 'Matthew effect' whereby the rich get richer and the poor become poorer. Interestingly, IF is not available for all indexed journals as not all journals indexed in MedLine are indexed in the Science Citation Index [7]. Moreover, the IF of a journal just tells about the merit of the journal, and not that of a particular article published in the journal.

Considering the potential problems in calculation of IF, it may be advisable to explore certain other bibliometric indices (**Box 2**) like Immediacy index, Cited half-life, SCImago journal rank and Eigenfactor score to compare journals [8]. Likewise, it is important to remember that for evaluating a researcher's academic merit, h-index, i-10 index, and citations (**Box 3**) are more relevant indices than the above.

**Affiliation of the Journal to prestigious organizations:** A journal publisher who is a member of the Committee on Publication Ethics (COPE) indicates that the Journal will follow the essential norms on publication ethics. COPE is a platform for editors and publishers of peer reviewed journals to discuss and seek advice on the ethical issues of publishing. Another indicator of the journal quality is its affiliation to the International Committee of Medical Journal Editors (ICMJE) which would also indicate that the journal abides by the publication recommendations given by them. Open access journals listed in the Directory of Open Access Journals (DOAJ) and Open Access Scholarly Publisher's Association also signify its credibility. Journals owned by reputed scientific societies (academies) are perceived to be superior.

**Peer review:** Peer review process is a service rendered by reviewers who provide honest and constructive criticism of research work to assess its worthiness for publication in a journal. Hence, peer review process is vital element of scholarly publishing and peer-reviewed journals are considered honorable [9].

**Reputation among colleagues:** A simpler way to assess the reputation of a journal could be asking your peers or mentor about their choice of journal.

**BOX 2. BIBLIOMETRIC INDICES TO ASSESS THE IMPORTANCE OF A JOURNAL**

*Impact factor.* The number of citations per paper received by a journal in a particular year to the papers published in that journal during the two preceding years.

*Immediacy index.* The average number of times an article gets cited in the year it is published, and hence indicates how quickly articles in a journal are cited.

*Cited half life of a journal.* The median age of the articles in the journal that were cited by other journals during the year. Therefore it reveals whether articles that were published a long time ago in that journal are still being cited.

*Eigenfactor score.* This score evaluates journals according to the number of incoming citations over the preceding five years, with citations from highly ranked journals weighted to make a larger contribution to the Eigenfactor score than those from poorly ranked journals (Page rank algorithm).

*SCImago Journal Rank (SJR).* It is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from. Calculation of the SJR indicator is very similar to the Eigenfactor score, with the former being based on the Scopus database and the latter on the Web of Science database

*Altmetric.* It is a non-traditional broad group of metrics which cover other aspects of the impact of a work, such as how many data and knowledge bases refer to it, cite it, article views (PDF or HTML views), downloads, or mentions in media (journal comments, science blogs, Wikipedia, Twitter, Facebook and other social media).

**BOX 3. BIBLIOMETRIC INDICES TO ASSESS THE ACADEMIC CONTRIBUTION OF A RESEARCHER**

*h-index.* The largest number h such that an author's 'h' publications have at least 'h' citations.

*i10-index.* It is the number of publications with at least 10 citations.

*Citations.* Citations of a researcher are the total number of citations to all articles authored by the researcher.

*Five-year citation.* Number of citations received by an author/article in last five years.

*Format:* To avoid outright rejection, one must check whether the journal has a policy of accepting articles of the form you are writing. This can be ascertained by reading the 'instructions to authors' of the journal, as well as looking at the past issues of the journal. It is important to ascertain whether the manuscript structure (order of sections), reference style, figure formats and image specifications match with the journal's style before submission. In case, you are not clear on this aspect, you can verify this with the editorial team by sending them an email (Pre-submission enquiry). This may be particularly relevant in case of review articles as some journals may solicit them from experts in the field.

*Accessibility:* Journals which have both print and online versions have easier accessibility and hence may be preferred. Journals providing free online content are more accessible, especially to readers from underprivileged settings. In addition, regional or national journals with English-translated versions may be globally more acceptable.

*Time-to-print:* Many journals, including *Indian Pediatrics*, declare the date of initial submission and the date of final acceptance at the time of final publication. Journals offering a reasonable time frame for publication should be preferred, lest the research becomes outdated. However, with rampant unethical publishing practices, authors need to be cautious while choosing to publish in journals offering fast-track publication as many of these may actually be predatory (discussed later).

*Publication charges:* In the traditional publishing model, the access to published research work was controlled by the publishers who charged libraries, institutions and individuals a subscription fee and also a per article fee. This was referred to as the "green road" of publishing. This model led to frustration amongst individual researchers as they could not afford to pay the hefty journal subscriptions which witnessed a steady annual rise of 8-10%. However, 2002 witnessed the Open access (OA) movement in scholarly publishing wherein users could download and read journal articles on the internet without having to pay for it [10]. The publishers of the OA journals recovered costs by charging the authors a publication fee. This model is referred to as the "gold road" of publication. Since most health care research globally is public-funded, the OA model does seem righteous in allowing all researchers a free access to

research and in assisting accelerated discovery and advancements in biomedical research. OA model also allows researchers to get more citations for their research. However, the economic viability of this model is debatable as the “author-pay” model is a major obstacle for researchers from developing countries who already struggle to get institutional budgetary allocation for research and hence opt out of publishing in OA journals unless granted a waiver of the author fees, which is usually tough. The publishers of OA journals also feel that author fees alone cannot sustain the high publication costs. While most OA journals do try to ensure a fair peer-review process to ensure high academic standards, lately there has been the emergence of several OA journals that compromise on peer review process and the quality of papers, with the aim of publishing more articles to generate more revenue from authors. Author fees, lack of journal prestige, ethical concerns, and loss of author copyright control are some of the major drawbacks of the OA model, and force many authors to tread the green road of publication.

#### WHERE NOT TO PUBLISH?

##### ***Beware: Predatory journals on the prowl!***

For sustained academic growth, ethical publishing is a pre-requisite. With the plethora of biomedical journals to choose from, authors need to be discerning more than ever before. While the OA model in publishing fostered easy and free access to innovative high-quality scholarly research, there was also a flip side to it [11]. Several poor-quality journals emerged on the internet that exploited the OA model by offering fast-track publication of poor-quality research without any peer-review, in return for a nominal article processing fee [12]. While some of these journals state the publication fee upfront, most notify the publication fee to the author only after his/her manuscript is accepted for publication. By then, much time and effort has already gone into the review and revision of article, and the author has little option other than to pay the fee. These publishers lure naïve researchers – mostly from developing world – by sending them spam and phishing emails inviting them to publish research work in their journals. Their emails often display the phrase “CALL FOR PAPERS” in capital and large fonts. Some of them even strategize to entice authors by sending them personalized emails praising their recent scholarly work and inviting them to submit similar research work. In order to promote the credibility of their journals, these publishers request researchers to join their editorial teams as members and editors. Their mails often have several spelling and grammatical errors. This unabashed unethical seeking of authors by publishers was first

pointed out by Jeffery Beall, an academic librarian from Colorado, USA, who christened them as ‘Predatory publishers’ in his blog in 2010. In 2011, Beall published a list containing the names of 18 predatory publishers [13], now called as the Beall’s list. In 2012, Beall shifted his blog to a Word Press platform and named it Scholarly Open Access (found at <http://scholarlyoa.com>). In his blog, he updated the list of ‘Predatory Publishers’ and “Predatory Journals” annually to caution inexperienced researchers and authors. Beall noticed that these publishers had certain common traits and postulated criteria to help identify them in his blog. Such publishers usually did not state the location of their headquarters and their websites were of poor quality, replete with typographical and grammatical errors. Papers in the publisher’s journals were not only of inferior academic standards, but were also poorly copy-edited. These publishers had a large portfolio with several journal titles with most of them being recent with scant content. The publishers’ emails have freely available domain names like gmail, hotmail, yahoomail, etc. Beall also noticed that these journals had little geographical diversity among editorial board members as well as authors, and the editorial board member list exhibited a male preponderance. The PDF files of papers published in these journals were locked to prevent them from being vetted for authenticity, and the publisher deliberately prevented the content from being indexed in academic indices. In addition, most of these journals adopted a nomenclature to closely mimic a reputed journal in the field, to beguile inexperienced authors. He cautioned against journals with ambitious titles containing terms like “Innovative”, “World”, “International”, “Global”, “European”, and “Euro-Asian”. Predatory Publishers have been known to make bogus claims about their indexing status and high impact factors of their journals [14,15]. They also seek the assistance of companies which claim to provide valid scholarly metrics such as CiteFactor, Advanced Science Index, General Impact Factors, Global Impact Factors and Science Impact Factor. These bibliometric indices have been described by Beall as ‘Misleading metrics’ as their calculations are non-transparent, unscientific and manipulated. These companies charge the publisher and assign them indices which increase with time, in an attempt to mesmerize naïve researchers. Since 2011, there has been a deluge of predatory publishers, with 923 predatory publishers (publishing thousands of predatory journals) and 882 stand-alone predatory journals being listed in 2016 [16].

Another concept of ‘Hijacked Journals’ was also noticed by Beall, wherein a publisher creates a website which falsely claims to be the website of an authentic

scholarly journal and even provides links to the bibliographic content of the authentic journal. They then invite manuscript submissions for the hijacked version of the journal and make away with the article submission and processing fees. The 2016 Beall's list mentions 101 hijacked journals against 30 such journals listed in 2015.

We advise authors to ascertain the credibility of journals by checking their credentials, indexing status, open access and archiving options, affiliation to scientific societies, the reputation of the publisher, and the Beall's list. The last is particularly important, as any association with predatory journals is now being viewed negatively by the scientific world.

With the groundwork for publication done, from next issue we will move on to the 'How' of writing a paper for a scientific journals.

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