

Editorial

Biomedical Journals in India: Some critical concerns

India is increasingly being recognized an emerging power, even in some areas of science and technology. In addition to other recognized parameters, scholarly journals of a country to a great extent reflect the quality of science being done. It is well known and accepted that our science and technology journals are not up to the international standard^{1,2}. Medical science is no exception despite Indian doctors excelling both in India and abroad. About 600 biomedical/life sciences journals are published from India with some serious science content, mostly by learned societies. One internationally accepted parameter on the quality criteria - inclusion in the global indexing and abstracting services shows where we are. The record of coverage of Indian biomedical periodicals in databases like the PubMed, Science Citation Index, Excerpta Medica or even the newly started Scopus is dismal. For example, of the 5500 plus journals covered in the PubMed system, just 39 (0.71%) are from India. Similarly, in the EMBASE of Elsevier, the number of Indian journals is 128 (1.71%). It is no better in any other global databases. Yet, that a substantial number of Indian journals are unavailable to global researchers, and have no impact factor (IF) continue to be of concern to policy makers, researchers and journal editors. Non-inclusion of these journals in the global databases means that even good research reported in these journals remains largely unknown to the world. One reason is that many Indian medical journals just do not make the grade. There have been some meetings of Indian medical journal editors to address issues of quality, standard, global outreach and other concerns. The 2nd National Assembly of Medical Editors organized by the *Journal of Indian Medical Association* late last year saw editors debate the ills plaguing Indian medical journals. This paper addresses some of these concerns with some potential solutions.

Paradoxical it may sound, it is actually true: journal publication has become at once easy and complex. Easy as unlike in the recent past, journal editors have access to a plethora of standards and guidelines offering help. More so for medical journal editors who are perhaps most privileged. The World Association of Medical Editors (WAME), the International Committee of Medical Journal Editors (ICMJE), the Committee of Publication Ethics (COPE), among others, have been very pro-active in formulating guidelines. In fact, the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (http://www.icmje.org/sop_1about.html) is perhaps the most comprehensive document of its kind in any discipline of science and technology. Since the first edition in 1979, the Uniform Requirements has been revised several times the latest version released in 2008. The document covers virtually every issue that is needed by editors and authors such as ethics, authorship and contributorship, editorship, conflict of interest, copyrights, electronic publishing, advertising, registration of clinical trial. Most important and largely unrecognized by Indian authors is the guidance for new authors: Preparing a Manuscript for Submission to Biomedical Journals. Guidelines are also available on conducting, reporting and editing research issued by the World Association of Medical Editors (WAME), Council for International Organizations of Medical Sciences (CIOMS), American Medical Writers' Association (AMWA), European Medical Writers' Association (EMWA), European Association of Science Editors (EASE), The Quality of Reporting of Meta-Analyses (QUOROM), CONSolidated Standards of Reporting Trials (CONSORT) to name a few. For example, COPE has released a 10-item Best Practice Guidelines for Journal Editors checklist for editorial standards and policies, relating to fair peer review, fairness in editorial decision, dealing with complaints, and misconducts, etc³. In addition, there is the once-in-four-year meet of

the International Congress of Peer Review in Biomedical Research⁴, a unique and unparalleled event in scholarly communication to improve the quality and credibility of biomedical peer review and publication and to help advance the efficiency, effectiveness, and equitability of the dissemination of biomedical information throughout the world. Managing a small or a medium size medical journal is easy now with the availability of affordable web-based manuscript management software that considerably cuts down operational costs. The advent and increasing use of internet and computer-readable form of manuscript submission facilitate peer review process, communicating the modified versions to authors, editing and finally to the publisher/printer with considerable ease besides cutting down the cost of wages *etc.* There are also commercial publishers in India now who offer quality end-to-end publication of learned journals - from editing to printing, distribution and even help in getting the journal indexed.

Now the difficult part. Editors (at least the serious ones) are under tremendous pressure to cope with several new challenges. With increasing global competition, attracting and retaining authors is much tougher now. Authors, aware of global journal quality criteria, are demanding more from journals - wide exposure to global audience, and impact factor. Therefore, editors often devote most of their energies towards getting their journal indexed in global databases as the PubMed at the cost of improving quality. The next logical step is to get the magical impact factor through inclusion in the Web of Science databases of the Thompson Reuters that list the impact factor and other indices of journals. Most database providers are notoriously non-transparent unwilling to share the criteria of journal selection^{2,5}. Frustrated Indian editors just have no clue why their journals are not included unlike those from the west with seemingly of same quality. Often years of follow up is required towards fulfilling the unending demands of the database provider. And this is only the beginning of the long haul. Journal editors need to ensure that they continue to maintain the rigid criteria for continued inclusion in the SCI/JCR *viz.*, maintain reasonable quality and standard, regular publication, punctuality *etc.*, from getting excluded from the database. And should a journal get evicted from the database for any reason (often with no reasons given), no amount of correspondence will elicit a satisfactory response. All this, when some the very top journals have accused the Thompson Reuters for their lack of transparency and more importantly, allowing manipulation impact factors^{2,5}.

Ethics is emerging as a very serious problem and a major challenge⁶. It is unclear whether this extent of prevalence existed earlier. The growth in number of flawed papers has been causing tremendous anxiety to journal editors the world over. May be because we now have software that can detect plagiarism, there is steep rise in the number of manuscripts that have plagiarized part or entire contents. More worryingly, when pointed out, some authors turn defiant refusing to accept the charges while a large majority simply request withdrawal of the paper from the journal apologizing for the 'inadvertent' error committed by (usually) the junior author. There are instances, when authors caught manipulating data or indulging in outright fraud, refuse to even acknowledge the letters from the editorial office. Regrettably, the people at high places like the dean/principal or director of the institutions from where the papers were submitted appear to be not very much concerned as they also do not respond to allegations against their staff by the editor. When such incidents get reported in the media, often a SOP follows. Set up a committee (with open ended time-frame and terms of reference) to (mostly) ensure a white-washing job. After all, the institute's 'prestige' needs to be protected, damn the ethics. That public memory is short helps. And there are always new allegations. The story starts all over again. Editors usually watch the drama with impotent rage, eventually getting frustrated, and may even turn cynical. More worryingly, as such allegations are difficult to substantiate, editors cannot even announce in their journals. Therefore, there is very little editors could do. Perhaps try and ban submissions from that particular author or group. The channels of informal communication between journal editors do not exist. With the absence of systems of wide and systematic dissemination about the accused to other editors, many authors manage to publish such papers elsewhere.

Conflict of interest (COI) has understandably been receiving the attention of editors in the west primarily due to the publication of clinical trials with pharma industry funding. COI is also emerging as a problem with increasing clinical trials being conducted in countries like India and other developing countries. The Medical Council of India (MCI) has come out with guidelines for medical doctors recently on COI⁷. The ICMJE recently introduced a new disclosure form which is adopted by the ICMJE member journals⁸. As of now it is not yet a serious enough problem in India.

Ethics of authorship continues to be a very serious concern to us and surely to other medical journal editors.

Misuse/abuse of authorship and not acknowledging legitimate contribution is perhaps as old as science itself and is widespread across the disciplines and all over the world. One just has to look at the controversies following awards, even Nobel prizes to know that it happens at the highest level. At the very basic level, cheating a junior researcher of legitimate authorship is quite common and rampant in medical colleges in India. May be because, typically most PG medical students leave the institution immediately unlike a Ph.D. scholar who is likely to stay longer. The guide for MD/MS thesis may publish the work years later and the authorship depends upon the then scenario. We have had several experiences of agitated junior authors walking into our office with their theses to substantiate their legitimate claims. We could do very little except consoling the youngster. This must be happening everywhere in India and should be addressed with all seriousness.

Two forms of abuse of authorship *viz.*, ghost and gift authorship continue to be of concern. In India at least, 'ghost authorship' that typically occurs in clinical trial papers where a pharma company outsources the writing part is as yet not a major concern. But gift authorship surely is very rampant and all pervasive. Papers submitted from several departments of medical colleges and from research institutes continue to carry the names of the head of the department and the Principal/Director although is quite clear from the content of the paper *vis-a-vis* the expertise of the head. It is prevalent even in medical institutes engaged in full time research as some research institutes of the ICMR and the CSIR underscoring the seriousness of the malady. Even the introduction of 'contributorship' has not helped much as there is always scope for someone

providing help as 'revising critically the intellectual content' to justify authorship. Unless, scientists at the top level follow some minimal ethical norms, no amount of guidelines and editorial oversight will help. Some system of 'naming and shaming' could perhaps stem the rot.

Coming back to the original question as to what ails Indian medical journals. There are far too many challenges; a few listed (Table). Yet, some very common impressions *about* medical journals in India merit attention – far too many journals; never on time, carry very little useful information; too boring to read; poorly edited, bad English, too much of me-too research; editors have little concern for quality or standard, too many statistical and/or ethical flaws and therefore not really worth subscribing. Which is why few authors willingly submit papers to Indian biomedical journals. Many of these concerns are very genuine but they hardly ever get addressed.

There is also no Forum in India to discuss such issues except in passing. The first National Assembly of Medical Editors held in 1985 came out with a list of problems with the Indian medical journals that merit immediate attention. Many of the concerns expressed now at the Second Assembly in 2009 (Table) are nearly the same. Many of the concerns stem from the way medical journals are run in India¹ which starts with the choice of editor of a journal. Most learned societies in medical disciplines continue to 'elect' the editor, not the best way. The elected representative, often new to medical editing, has a limited tenure of about three years. By the time he or she understands the complexities of the challenges, usually through talking to people and looking at web sites for assistance *etc.*, the term ends.

Table. Some common problems encountered in scientific publishing in India

Journals	Editors
<ul style="list-style-type: none"> • Not on time • Poor accessibility & coverage • Poor technical editing • Inferior quality of content • No checking of authenticity • Bias in sample selection • No novelty in most cases • Study design not clear • Authorship • Ethics • References not checked 	<ul style="list-style-type: none"> • Flawed/biased peer review • No check on simultaneous duplicate submission • Poor statistics • No systems of data sharing • Checks on plagiarism/duplicate publication • Poor scientific editing • Authorship/contributorship issues • Conflicts of interest (COI) not declared • Industry sponsored research/Financial COI • Registration of clinical trials • No co-ordination among other journals • Unprofessional

For some editors, it is just another position to be listed in their CV as an 'achievement'. They hardly even find time (especially those from clinical disciplines) or interest to seriously understand how to improve the journal. That there are no editors associations/Forum in India compounds the problem. As many Indian medical journals have part-time, inexperienced editors with limited exposure to the basic principles of managing an editorial office, it is too much to expect from them to maintain 'quality' of editorial content. The same story continues every three years or so with predicted outcome. Not surprisingly, these are problems faced not just by India but by all countries with limited research capability^{9,10}. Training of new editors should thus be on the agenda of the august academic bodies for medical education, and research.

Some steps nonetheless have been taken to improve the status of Indian medical journals, especially their international outreach by agencies like the ICMR. It is well known that data and information from India are not readily available while one could near instant access to western data primarily because of their inclusion in the international databases. Recognizing that ready availability over the internet could help researchers access Indian data/information reported in these journals, a new initiative was taken. The ICMR set up two databases at the ICMR-NIC Centre for Biomedical Information located in the National Informatics Centre, New Delhi. The first IndMed (<http://indmed.nic.in/>) was created primarily as a bibliographic database of peer reviewed Indian biomedical journals, particularly those not covered by other global indexing services, for quick and easy access to Indian literature. At present, 76 journals are covered in IndMed database that provides the title and abstract of these journals. Later on another database the MedIND (<http://medind.nic.in/>) was created to give full text access of Indian journals which now includes about 40 Indian medical journals. Many of these journals are also being provided assistance to get their back volumes computer-readable for web access. Many Indian medical journals are also being provided with web-based editorial management systems to help them function more effectively. Soon, all the journals under the IndMed would have their entire content on the web.

Many suggestions have been made earlier also to improve Indian medical journals like why the scientific elite in India continue to ignore Indian journals, how other emerging countries have initiated steps to strengthen local journals *etc*^{2,11-14}. Except for

some isolated efforts at some national meetings when the quality and standards of medical journals do get discussed in passing, nothing substantive has been done to improve Indian medical journals. Sadly, improvement of Indian medical journals is not exactly on the top of agenda for the august bodies as the National Academy of Medical Sciences or the Medical Council of India, despite the recent radical modifications suggested for promoting medical research⁷. The revamped Governing Council of the MCI should do well to take a note of this.

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