

Quality of a Medical Journal: Where do we stand

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Worldwide the quality of medical journals are measured by prestige. This is a vague and a qualitative term used and reflects the reputation and popularity of the journal. The widely acceptable tool which provides an objective measure is called the Impact Factor (IF). The IF is a measure of the citations to science and social science journals. In general medical journals have got higher IF than other sciences like engineering and mathematics. It is a tool to measure the quality of articles. In general, higher the impact factor of the journal more difficult for any article to be accepted in that journal. It is frequently used as a proxy for the importance of a journal to its field. The Impact Factor was devised by Eugene Garfield.¹ The Institute of Scientific Information (ISI), now known as Thomson Scientific when developed citation indices and subsequently using journal statistical data compiled a Science Citation Index (SCI) and then started to publish Journal Citation Reports (JCR) in 1975. JCR provides quantitative tools for ranking, evaluating, categorizing and comparing journals.

Impact factors are calculated each year by the Institute for Scientific Information for those journals which it indexes, and the factors and indices are published in Journal Citation Reports (JCR). Eugene Garfield described that a journal's impact factor is based on 2 elements: the numerator, which is the number of citations in the current year to any items published in a journal in the previous 2 years, and the denominator, which is the number of substantive articles (source items) published in the same 2 years. The impact factor could just as easily be based on the previous year's articles alone, which would give an even greater weight to rapidly changing fields. A less current impact factor could take into account longer periods. Alternatively, one could go beyond 2 years for the source items in the denominator, but then the measure would be less current.² A journal which has long lag time between submission and publication, it might be impossible to cite articles within the three-year window.

For example, the 2003 impact factor for a journal would be calculated as follows:

A = the number of times articles published in 2001-2 were cited in indexed journals during 2003.

B = the number of articles, reviews, proceedings or notes published in 2001-2.

2003 impact factor = A/B

(note that the 2003 impact factor was actually published in 2004, because it could not be calculated until all of the 2003 publications had been received.)

It helps librarians to manage and maintain journal collections and budget for subscriptions. It helps publishers to monitor their competitors, identify new publishing opportunities, and make decisions regarding current publications. It helps editors to assess the effectiveness of editorial policies and objectives and tracking the standing of their journals. It helps authors to identify journals in which to publish, confirm the status of journals in which they have published, and identify journals relevant to their research and also it helps information analysts to track bibliometric trends, study the sociology of scholarly and technical publications, and study citation patterns within and between disciplines[JCR®]. Publications of the papers in high IF journals appeal the potential academic administrator for an academic appointment of a scientist and doctor.

Impact factors are not infallible measures of journal quality and should not be considered the only tool to assess the quality of any journal. There are many conflicting opinions about the impact factor. On one end it has got huge influence on the way published scientific literature is perceived and evaluated. Whereas, on the other end it can be misused in evaluating individuals due to wide variation from article to article within a single journal.³ The ISI which calculates the IF of the journals covers mainly journals in English language and very few journals are included from the less developed countries. The journals of high IF are over-supplied with material for publications and have a high rejection rate. Investigators from developing countries find it easy to publish their work in the low IF or no IF journals, as they are at a disadvantage of finding adequate financial support for their research work. Though the publication in the low IF journals does not mean that those articles are of less clinical value.⁴ The fact is that good papers in journals from less developed countries without any IF are underrated by the scientific community.

Do the clinicians or the policy makers use the research work published in journals of developing countries

for the development of guidelines or changing their policies and practices?. What criteria should be used to measure the usefulness of these journals? Are these journals used only by the researchers to obtain professional promotions?⁵

In 2002 a task force of PMDC developed guidelines for the editors of medical journals in Pakistan to improve the technical standards of the journals regarding acceptable standards for the recognition of the journal. These guidelines are based upon recommendations of three important international bodies i.e. International Committee of Medical Journal Editors (ICMJE), World Association of Medical Editors (WAME) and Institute for Scientific Information (ISI). These guidelines were published by the council as "Essential Guidelines for Authors, Reviewers and Editors of Medical and Dental Journals".⁶ Concerns were raised that PMDC has failed to achieve the expectations to improve the standards of medical journals in Pakistan and numerous suggestions were made by Pakistan Medical Journalist Association (PMJA).⁷ It appears that there are two groups of people involved in promoting good quality medical journalism but there is some politics showing lack of partnership and confidence in each other.

At present PMDC recognises only 33 journals published in Pakistan in addition to those which are recognised by Index Medicus.⁸ The question arises why would an author look at the recognition of a journal by PMDC. For an author it is important to know if a journal is indexed, is available on websites, is available in international libraries and has a good quality of articles published in it. If a journal is recognised by PMDC but is not available worldwide in either print or electronic media, what would attract researchers to get a good quality research work published in a local journal. Therefore, recognition by PMDC does not make a journal a prestigious one by default.

At present there are about 51 medical journals indexed in PakMediNet, Pakistan's first online database of Pakistani medical journals.⁹ The National Library of Medicine in Maryland, USA produces Medline (Index Medicus). It is one of the largest medical database available through commercial vendors and freely available through numerous websites, notably PubMed. There are only few Pakistani medical journals including JPMA, JCPSP, JPS and JAMC indexed in Medline [Pub Med]. There are only two Pakistani journals indexed on the Web site of World Association of Medical Editors Member Journals.¹⁰ It is not easy for a journal to be indexed and also to be maintained indexed.

The quality of these journals is significantly variable. Some of these journals are not timely and regularly published. Many of Pakistani journals do not appear on

Web, hence minimizing their worldwide availability. This results in lack of input and contribution from wide variety of people.

There are many reasons why a journal would publish substandard articles. One genuine reason could be general scarcity of good quality scientific trial and research work in Pakistan. Second possible reason is relative excess of journals and shortage of authors. Majority of the publications in Pakistan journals are from Pakistan and lacking international contribution making these journals appear local. These journals perhaps do not attract authors from other countries to get their work published in Pakistani journals. Geopolitical intrusion can effect editor's decision but it has also been reported that our editors are sometimes pressurized by the political recommendations by the authors.¹¹

Falsification of reports and fabrications of the results along with the Plagiarism are the universal problems in medical journalism. It is very difficult to catch the fabricated results but relatively easy to pick the plagiarism if software like Etblat® are available.¹² But once again, how many editors have got access to this kind of sophisticated system. Good reviewers are very useful in selecting good papers and advising editors about the quality of the papers and would be helpful in picking up fabricated reports. The availability of the experienced and efficient reviewers from rapidly advancing specialities is essential and its lacking could certainly result in poor quality articles getting through for publication.

The question remains for authors, librarians, policy makers, publishers, financial supporters and also for the academicians as how to discriminate a good quality journal from an ordinary one. Threat remains that with current mushrooming of medical colleges and universities in Pakistan more and more individual institutions will launch their own journals for self benefits. It might create healthy competition between different journals for their survival but there is a fear that mere quantity of medical journals without a measure of quality control in place will jeopardize the standard of medical journalism in Pakistan. Editors of the journals should inform authors and researchers and their reviewers about the changing trends in medical journalism.

Many doctors and scientists from Pakistan working in developed countries could contribute to these journals and raise the profile of national journals. Once the journals achieve an international recognition, they will automatically attract good quality scientific work from all over the world. One can only request Pakistani doctors working in developed countries to contribute to these journals. Associations of doctors of many Pakistani medical colleges in USA, UK and Europe are fairly active in performing

social and charitable work in Pakistan. These organizations can play a significant role in improving the quality of medical journalism in Pakistan.

Regular training workshops for authors, reviewers and editors certainly helps in improving the quality. Many authorities like CPSP and PMA are struggling to raise the standard of medical journalism in order to meet an international level and develop journals of high impact factor from Pakistan. All the concerned authorities like PMDC, Pakistan Medical Journalists Association, academic councils of the medical universities and undergraduate and post-graduate medical colleges should consider to devise a system to develop a local instrument to measure quality, like IF, of medical journals in Pakistan. Information about the other indicators of journals visibility such as circulation, number of published articles and the distribution of the citations as recommended by WAME should be disseminated so the authors and all other relevant parties can assess the credibility of medical journals.

Funding is always a major issue. A regular publication with an effective distribution along with an online edition is an expensive business but provides a strong base to attract international authors to a journal.¹³ Financial constraints is one of the main reasons majority of medical jour-

nals fail to thrive. Support of medical journals by the pharmaceutical companies is well recognized worldwide to promote their products. However, government and ministry of education should consider to support a standardized publication of medical research at national level to bring Pakistan in the front line of the field.

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