

How to Select a Journal to Submit and Publish Your Biomedical Paper?

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SUMMARY

Introduction: journal selection for publication purposes is one of the concerns of biomedical researchers. They apply various criteria for choosing appropriate journal. Here, we have tried to collect main criteria biomedical researchers use to select a journal to submit their works. **Methods:** we collected these criteria through focus group conversations with researchers during our careers, feedbacks from participants of our scientific writing workshops and non-systematic review of some related literature. **Results:** we have presented a summative and informative guidance in the selection of journals for biomedical paper submission and publication. **Conclusion:** Categorized criteria as a mnemonic tool for authors may help the authors in journal selection process.

Editor's note

Research education is a new part added to *BioImpacts* in terms of education for biomedical authors and researchers in basic concepts of various aspects of research. This part will be appeared in other issues of *BioImpacts* with regard to editors' decisions. *BioImpacts* invites authors to contribute in this part sending a 250-word summary of their suggested topic to Editor-in-Chief. After editorial approval, author can submit full manuscript for review and publication purposes.

Introduction

Journals are the main formal information channels for scientific communications (Russell 2001, Lancaster and Smith 1978). One of the major goals of these scientific channels is to disseminate qualified scientific information. So, most journals have a peer-review filter to screen and improve qualified papers (Armstrong 1997) or to get them be matched with the aims and scope of journals (Jefferson *et al* 2002).

The process of finding a suitable journal to publish research findings is a proficiency in which not all the researchers are skilled. It occurs sometimes that a research activity is undermined because of lack of information in finding the appropriate journal or a work is rejected because of this matter. Therefore, it seems necessary to acquaint the researchers with some primitive criteria in

finding and selecting the suitable journal for publicizing their research results. This information can facilitate the process of publication and prevent undermining or overestimating a research.

Journal selectors

Scientific communities consist of various information producers and consumers who select journals considering different purposes. Researchers as authors, reviewers, editors, scientific communities, publishers, librarians, readers, policy makers, commercial and industrial companies, practitioners, indexing and abstracting services and even journals, on the one hand, may be the main journal selectors each of which has their own purposes and journal selection criteria. On the other hand, journals have their own manuscript selection criteria which may be in conflict with aforementioned selectors.

Scholars' reasons for publication

Our audiences here are authors and researchers who are sometimes called scholars. Scholars who publish the results of their researches in journals follow similar publication aims.

Progress in human knowledge, improvement of patient care and scientific communication in the field might be the idealistic objectives of researchers (Thompson 2007); however, they may publish for other different purposes

(Zain *et al* 2011, Isfandyari-Moghaddam *et al* 2012). We listed some researchers' motivations for publication through personal communication during our careers:

- Documentation of scientific information;
- Knowledge sharing;
- Expansion of a certain scientific field;
- Problem solving;
- Ownership of findings;
- Respect to religious beliefs;
- Personal promotion;
- Intrinsic satisfaction;
- Acquirement of awards and grants;
- To compete;
- To get money;
- To enjoy;
- To survive!
- Many other goals.

Absolutely, this is not a comprehensive list but may include main publication goals of authors. Actually, authors' purposes for publication play the main role in choosing appropriate journal to submit their manuscripts. As well, goal determines required tools (i.e. journal) to achieve the goal. So, define your goal before starting journal selection process.

Authors' criteria for journal selection

Here, we intended to present the main objective and subjective criteria which may be considered by potential authors in selecting the journal to submit and perhaps publish their works. We collected such criteria experimentally through scientific writing workshops held by the authors, personal conversations with researchers, discussions in focus groups and previously published literature. It is also an effort to categorize these criteria to make it easy to understand and memorize like a checklist or mnemonic tool to be utilized while selecting a journal.

Manuscript topic

Aims and scope

Every journal has to define its inclusion and exclusion criteria as aims and scope to receive only papers related to subject coverage of the journal. One of the editors' roles is to check the content match of submissions regarding aims and scope of journal to sift related papers for reviewers. As a part of this role, editor may ask authors to send the paper to an appropriate journal or to change manuscript to increase compatibility. So, authors should keep in mind to study the scope of journal and check the frequency of their own manuscript topic with scope as well as topics of previously published papers in target journal.

Journals published similar works

There are other ways to find the journal related to the manuscript. References of manuscript are good guides which list the journals for the authors. Citing more than one paper from a certain journal in the manuscript imply a potential journal for submission. Moreover, *eTBLSAT* (Errami *et al* 2007), a free online software, could help the authors to find similar papers to authors' works and authors may select the journal in which similar papers have been published. *PubMed* is another free comprehensive resource to search the keywords of manuscript using *Medical Subject Headings (MeSH)*. Sorting the search results of *PubMed* by journal title will show the authors the alphabetically ranked names of journals that publish papers in similar topics.

Publication types

As the last tip of this part, authors should be aware of editorial policy about the accepted types of papers by journals. Some journals intended to publish limited types of papers. Name of journals containing "review" may indicate the coverage of article type; however, authors must study the editorial policy and authors' guideline or instruction for authors for sure, as there are many types of review papers (Grant and Booth 2009). *PubMed* provided "publication type" limitation for the authors and authors could search the journal name, limiting results to their desired type of manuscript to find out if the journals accept such type.

Audiences and usage

Specialty

If you want to share your knowledge among special group of readers, it is crucial to select a popular journal of that group to increase the readership of your article. You may decide to publish your paper in a multidisciplinary journal versus field-oriented one to let the readers of other fields to study it. But this may decrease the readership of your paper among your colleagues. Also, the language of journal may be an effective factor in readership.

Language

Choosing a non-English journal strongly depends on your research trends. Action researches or local problem-based studies may be published in an international journal or a famous national journal especially in countries whose first language is not English. Authors may be permitted by journals to publish their works in more than one language when the ethical and legal conflicts are resolved between the authors and editors of journal that publish first edition of the paper.

Presentation format

Most journals have been online to absorb more potential readers, however, they still publish their papers in print format because readers' reading behavior are different by age, nationality, education level, etc. Furthermore, academic libraries as main subscribers of journals need online edition for the fast search and retrieval besides print edition for the archive, copy purposes, study of old users and so on. It may be better to choose hybrid journals

Usage

Although usage is one of the main criteria for the authors indicating the use of their paper, there is no consensus how to measure usage of papers published in journals. Accessibility of papers for readers does not quarantine the readership. Numbers related to downloads, requests for copy, subscriptions and even citations beside network facilities like log analysis could not be representative measures of the usage but could show the interests of users to a certain paper or journal.

Scientometrics

Journal Impact Factor (JIF) (Garfield 1955) is one of the most popular indicators of usage. JIF shows the average number of citations per paper published in a certain journal in the last two years. But, its application was changed where it may be used as research evaluation factor that could be an alert for researchers (Seglen 1992, 1997). Beside such deviated function, nonetheless JIF is a biased indicator affected by many confounders (Ha et al 2006). Dong et al (2005) already gathered most of the shortcomings of JIF and collected some tools as alternative indicators to resolve JIF problematic issues. Anyhow, importance of JIF made some editors of journals to find various ways to increase JIF of their own journals (Aydıngöz 2010) to attract more and better manuscripts.

JIF could be a usage and perhaps a readership metric for journal not a single paper and it has different meanings for authors. Publishing the papers in high impact journals increases the possibility to get cited. In addition, JIF is accessible, applicable and popular but authors should strongly be aware of the limitations of JIF and not to use it dependently.

It was reported from many years ago for several times that there is a remarkable pressure on researchers to submit their papers to journals with higher JIF (Makeham and Pilowsky 2003, Muffuli 1995, Vinkler 1986). If the authors be supported by some funders caring JIF and citations to the work, they may choose a journal with a JIF which is compatible with the potential times their paper would be cited. Also, authors should use *Journal Citation Report (JCR)* to search for JIF of the journals and should not trust in what is reported in the websites of journals where some non-prestigious journals present fabricated statistics beside a fake JIF.

Anyhow, number of citations is not an ideal usage measurement. Garfield (1996) reported at least 15 reasons why a work is cited and not all of these rationales imply usage and prestige. Although, Garfield (1986) declared the meaning of impact, indicating that a citation means a paper has influenced an author and more often a paper is cited, the greater its influence on the scientific community, however, controversial ethical issues about citations should be considered by researchers (Reedijk 2011).

Also, softwares such as *EndNote* and *Reference Manager* as the products of *Thomson Reuters* (formerly ISI) may change the face of citations and it happens that authors cite papers only via reading titles and abstracts instead of studying the full text. Although such softwares were produced to help authors in management of citation styles which differ among *Law-Based*, *Theory-Based and Hypothesis-Based Sciences* (Shokraneh and Zaidi 2009), but they could lead in an unusual study behavior, too. Times cited could not be assumed as times read (Bellini 2012) when the authors could cite papers never read.

H-Index (HI) (Hirsch 2005) which could be found via Web Of Science (WOS), Scopus and recently in free way of Google Scholar (using appropriate Firefox Scholar H-Index Calculator add-on or Harzing's Publish or Perish software) may be another quantitative criterion for the authors and journals, but HI has its own deficiencies (Costas and Bordons 2007, Glänzel 2006, Bornmann and Daniel 2005). Because of different time and publication coverage of each resource, HI of a journal may differ among WOS, Scopus and Google Scholar.

As the last major scientometrics resource, *SCImago* uses *Scopus* data to present additional information about a new ranking of journals. It is going to be popular as a free complementary of *Scopus*.

By the way, looking at the numbers such as JIF, HI, rejection and acceptance rates and so on by itself could not be representative of a suitable journal but they may help authors in their final decision.

Visibility

Abstracting and indexing services

Visibility leads in accessibility and readership. Authors should know where to present their papers to get more readers. Before internet emergence, a number of individuals and libraries' subscriptions of journals and coverage in printed bibliographic services like Index Medicus were important factors for the authors. Nowadays, they are replaced by the coverage of journal in topical bibliographic databases (Thyer 2008). Coverage and indexing of journals by main bibliographic databases is the best criteria in the selecting appropriate visible journal. Most of biomedical researchers search PubMed, as a free popular vast resource that includes MEDLINE and PubMed Central, to find their required papers. So, the coverage of journal in PubMed is a good option for the judgment about its visibility. Scopus and EMBASE, the products of Elsevier, could be the second option since they are not free. Free scientific search engines such as Google Scholar and Scirus, powered by Elsevier, could be the third options to show the visibility of journal. Most journals honestly report where they are covered by, but the authors should search such resources for certainty.

Coverage of journals in Thomson Reuters' citation indexes and MEDLINE could not validate the journals. You may find examples of poor quality journals covered by such databases. Thus, submit to indexed journals to increase the visibility of your paper not to validate it.

Open access

Journal facility for open access to full papers besides choosing multidisciplinary journals, considering the topic of paper may make them more visible. Authors should realize that open access policies of journals are different and legal issues about the copy right owner and financial purposes in particular should be considered before the selection of an open access journal for visibility and readership purposes. Davis (2011) conducted a randomized clinical trial to assess the trends of readership and citations between open access and fee-based journals and concluded that open access to papers may lead in more readers than fee-based access, although additional readership may not result in more citations. Real advantage of open access is to those outside the core research field. Open access journals resolved some copyright issues in different models! Many of them ask authors to pay money to make their paper freely accessible for all users but keep the authors as copyright owners. Other open access journals make money only by accepting advertisement in their website/printed edition and make papers freely accessible. Some of them published by NGOs may not concern about financial issues. Some of the journals make free access to papers six months after fee-based publication. There are many other ways that journals use to be compatible to their environment but in most of them, authors are copyright owners.

As the final tip about open access, some of these journals may ask the authors to add "Authors' contribution" section to papers and declare roles of each author. Before adding such section, authors should study authorship policy of journals as well as ICMJE (Vancouver Group) guideline for the trends in authorship order presented in biomedical papers (Burrows and Moore 2011). Unless they will be surprised by omission of one or more coauthors who have not meet authorship criteria.

Quality

Quality of journals could be divided into two parts: content and physical presentation.

Peer-review for scientific qualification

"The foundation of science is published evidence" (IS-CU CFRS 2011) and editorial board of journals must be careful about scientific quality of submitted manuscripts. Scientific quality filter known as peer-review is a way in which reviewers critically study the manuscript to make sure about the scientific quality of content and methodology and to detect biases. Reviewers may comment on the manuscript and suggest new features or changes to make manuscript suitable for scientific community. Although peer-review is mostly subjective (Smith 2006) rather than objective and different reviewers may have different and sometimes paradoxical comments, there may be no better way for the accreditation of papers. As an adjusting solution, editors could help authors by assigning appropriate reviewers and solving controversial reviewers' comments. Authors can check the quality of such comments to reveal the level of journal's scientific quality. There are different types of peer-review and authors firstly could study the review process of each journal to select a desired one (Fahy 2010). Review process may be open (no blinding), double/singleblinded to serve anonymity of both authors and reviewers or only reviewers. In addition, journals may use internal or external reviewers that may affect time needed to review. Also, assigning appropriate keywords for manuscript and suggesting relevant reviewers by authors with regard to journal's policy will help the editors to send the manuscript to suitable reviewers.

Physical quality

Author should care about the physical aspects of journals' materials such as quality of paper, hard copies, colors, figures, tables, pictures, layout, typeface, headers and footers and paragraphs in sample online and printed papers. Psychologically, these features can affect attracting authors as well as readers' attention and increase reading time which may be important for readers while reading long papers.

Authors may check the scientific quality of their own manuscript through comparing it with the previously published papers of those journals to find most compatible journal for submission. Checking appearance features is the second priority of authors.

Prestige

Aged journals may be experienced, well-known, stable, indexed in different databases and may have higher rejection rate. All of such attributes bring prestige, but such journals need brave authors who should be experienced, well-known and perhaps aged! Less prestige journals may make the publication easier but decrease quality and so, increase time period between acceptance and publication (Thyer 2008). Frank (1994) developed a research to evaluate authors' criteria of choosing the journals to submit manuscripts. Although prestige was the main criteria authors' cared about in initial submissions, the word prestige may be meant in different ways. Specifying a cut-off for the prestige of journal using following issues is suggested for authors.

Publisher

Journals published by prestigious publisher imply experience, precision and quality in some cases; however, the publisher rarely could interfere in the scientific process of manuscripts and it happens even such prestigious publishers publish less prestigious journals.

Editorial Board

A fulltime well-known Editor-in-Chief who may be one of the leaders of a scientific field, reputation and internationality of editorial board, reviewers and even authors are the effective factors mentioned by authors in choosing a journal in our communications besides the affiliation of journal to a scientific community and location of editorial office.

Stability

Digital Object Identifier (DOI), as a unique digit signature for each paper and sometimes its figures or any other digital object, helps in locating the paper in the internet. If the URL of a paper gets changed, registered DOI is stable for locating papers in the internet by adding DOI number to the end of http://dx.doi.org/. Assigning DOI, as ID number, to each paper may show the importance of stability of papers in the internet for journals. Some authors care about the stability of journal and papers; so most of well-known publishers provide DOI for all of the papers. Coverage of journal by indexing services and interfaces such as *PubMed* which assigns *PM-ID* for each paper could also be as important as DOI.

Communication

Most authors would like to be in contact with journal in different ways to get aware of journal policies and scopes or to track their own manuscript.

User-friendly website

Website of journal is the main communication media for the authors since it may include the links to services such as online submission and manuscript tracking system, phone and fax numbers, emails of editorial office and editors, contact forms, instruction for authors, review process, journal information, etc. An up to date website shows the journal activity and aliveness. Also, easy navigation and user-friendly interface save the time and energy of visitors including authors and readers.

Website managers should try to apply different search engine optimization methods to make their website visible in search engines. Some authors may discover a new interesting journal via Google. Then, they will communicate with a journal through its website, web design and different technical issues about user-friendliness may lead in a positive attitude of authors to the journal.

Authors' freedom

Some journals provide facilities for authors to suggest their desired or undesired reviewers, although the editor may not care about the suggestions. Sometimes, journals give more freedom to authors before submission and let them to send an abstract to editors' email to know whether the work meets journal scope (Fahy 2010). This method works in particular for review papers not been invited by the journal.

Alerting services

Reputed journals value their users and keep them aware of what happens in journal by sending email alerts containing table of contents of new issue, new article, special issues, invitations, celebrations, status of manuscript, number of downloads, new citations, etc. Besides these, they let users to easily stop such alerts for any reason.

Feedback

Since authors may opt for different ways of contact, journals should provide postal and email addresses, phone and fax numbers and online forms for comfortable communications. However, rapid responsiveness is more important than provision of contact channels. Any ignorance may frustrate authors and appropriate feedbacks may increase positive views. It is not amazing seeing authors glad when their manuscript is rejected in accordance with rational, invaluable and on-time comments and feedbacks. Some journals provide free English editing services for the first manuscript of new authors from non-English-spoken countries. Others edit the minimally plagiarized parts of new authors and educate them in different good manners. Anyhow, there are different ways journals employ to attract loyal authors.

Acting as reader, author, reviewer or editor of a certain journal empowers such people to submit to that journal. So, journals may seriously consider such relationship in an ethical way to attract more contributors.

Ethical and legal issues

Scientific journals never forget ethics and legality. Every journal may encounter various controversial issues every year that some of them may be crucial for authors.

Confidentiality

Original works submitted to journals may be stolen by one of the journal staff or a hacker who passes the security walls of online submission system. Protecting manuscripts is one of the journals' responsibilities and journals have to clarify this in their website. Besides this, journals must keep authors' personal information confidential and never use such information for financial purposes in particular. However, authors should be careful in their submissions to the vague-policy journals.

Scientific writing and publishing ethics

Publication ethics include different types of plagiarism (Shokraneh and Khan 2009), data fabrication or falsification, co-submission, duplicate publication, salami papers and other related issues. Presenting documented guidelines for each of these issues is a good factor for authors in journal selection. Some of the journals are members of *Committee On Publication Ethics (COPE)* who provide such guidelines as well as consultations about controversial ethical issues for member journals. Choose a journal which reports publication ethics policy in the case of problems that may happen for papers.

Medical ethics

Researches on animal and human subjects, especially interventional studies, need special ethical requirements. Researchers must report the ethical guidelines they use in such researches. Trials on human cases need more considerations like RCT registration number, confidentiality of patients' personal information, anonymity of patients, signed informed consent forms by participants and so on. Nowadays in every research center, there are medical ethics committees who assess the compatibility of research proposals with international guidelines and their approval is needed for financial support as well as submissions to journals. Journals must report the presentation way of such ethical issues.

Conflict of interests

Interest of authors, reviewers and editors should be clearly declared. Any political, religious, financial, etc. attitudes may create a bias for the contributors of journal. Such biases deteriorate journal reputation and in biomedical journals, they may lead in the publication of biased papers, which provide pseudo-evidences for practitioners, policy makers, grant funders and physician's decisions on patients' life. Also, such publications may be cited and used by other researchers and waste their time, money, energy and prestige perhaps.

Although some journals rarely reject a manuscript containing possible major bias especially financial disclosure in pharmacology and drug research fields, reported interests, acknowledgements and affiliations give chance for readers to be careful in studying and using such papers in their evidence-based practice. Authors should select ethically clear journals and honestly report their possible interests.

Copyright

Many journals care about the copyright owner of papers and describe rules for using copyrighted materials. Authors may be interested to be the copyright owner of their own work so they should study rights' chapter of journals before a final decision for submission. Some authors may be surprised when the journals ask them to pay for the access to their own papers.

Simplicity

Most authors are researchers who are trained for research and it is usual to have problems with hard submission criteria in journals. Simplicity of author' guidelines, paper submission and using ICMJE guidelines by journals are more desirable for authors. Some journals ask authors in complicated conditions for payments per page or colored figures as well as high quality pictures for publication. Some authors have learnt how to meet the criteria easily, but others may not intend to spend much time for such issues.

Time

Journals are preferred to books in their presentation of up to date information. Duration of submission to publication may not be so long to lead in the missing of novelty and timeliness of research. Time issue makes journal selection process more important for the authors. Hence, rapid responding journals are great chances for the authors. Even responsiveness of journals may be vital for the authors. Time needed for early decisions such as rapid rejection or acceptance and quick publication should be considered by both journals and authors. Biomedical fields which grow faster than many other disciplines put the novel results of researches in jeopardy of obsolescence and novelty may miss if the authors select the slow motion journals. On the other hand, fast process should lead in low quality of published work and rapid-responsibly of a certain journal should not deceive the authors.

Authors could acquire required time issues information from different ways. Some of the journals describe such information in their instructions for authors or review process but authors should be suspicious about such information that may be affected by editors' intervention. Asking authors who have previously published a work in a certain journal is one of the suitable ways of information gathering about a journal. Also, most scientific journals mention receive, revise, accept and publication dates on every published paper. Checking random papers may provide a general view about time durations of journals. Reviewing such information, authors should remember that some of reported time may be wasted by authors in revision process and it often is not journals' fault; however, journals should consider suggestions (Khosrowjerdi et al 2011) such as online publication, online peer-review system, designing preprint databases, assigning deadlines etc. to resolve publication delay.

Suggestions by colleagues

Every researcher talks about works in different journals. Their experience and advice on journals may be an effective factor for other authors. Conversations with subject librarians, authors, editors, readers and so on could provide valuable information on decision on the selection of a journal. Besides, ranking systems of journals, online directories, search results of PubMed and other factors should be taken into account by the authors.

Experienced authors never rely on the subjective opinions of others ignoring their own evaluation applying different criteria.

Cost

Free submission and publication is a merit for low income authors and countries but payments may increase the production and scientific quality of work. Reasonable payments of journals for colored pictures, language editing, paper length, etc. may be good options for both journals and authors, however, not all of the authors have the facilities to pay money for the publication.

Financial issues of journals are another remarkable tip for authors, in particular for those choosing open access journals. Sometimes authors are satisfied when they are confident that the authors' payments lead in the free full text access for readers and authors.

Motivators

A survey in 1999 revealed that communication, career, prestige, funding and financial awards are respectively the main motivations of authors for publications. So it is crucial to take such motivators into account (Swan 1999).

Research founders may impress authors to publish their work in known/valid journals on the one hand and authors may have limited options for selections. On the other hand, some journals devote awards and good choices for authors. Suggestion of wanted and unwanted reviewers of manuscript, annual awards, invitations and call for papers, free hard copies of certain issues and even official acceptance letter and good feedback are considerable motivations for authors and sometimes lead in the challenge among authors of the same manuscript where to submit their paper.

Acceptance possibility

Frank (1994) reported likelihood of manuscript acceptance as the most important factors for subsequent submissions. But for initial submissions, acceptance possibility could be evaluated by many other ways:

- Numbers of published papers and issues per year in journal;
- Affiliations of manuscript authors;
- Existence of well-known co-authors in manuscript;
- Submission of first work of authors' scientific life;
- History of journal in publication of papers from authors' country;
- First paper of authors' country in a certain journal;
- Past communication experience with editors and reviewers;
- Rejection and acceptation rates if unbiased statistics are available;
- Selection of newborn journals;
- Aforementioned criteria and many other issues.

When to select a journal?

Sometimes, researchers suggest selecting journal before manuscript preparation. This may be good because authors consider instructions of a certain journal in preparation but it may restrict authors to particular limitations such as length of paper as well as content presentation quality. Paradoxically, there is a belief that the selection process should be performed after manuscript preparation. This way may lead in free writing with no limitation; however, reformatting the manuscript for a journal may take time.

Authors are free in choosing their own trend. They could send the abstract for some journals and make final selection decision after receiving feedbacks from the editors.

Conclusion

There are many journals in every scientific field and authors need to select a proper one for their own work. Selection process is affected by many criteria and authors should not consider only one criterion for decision. Regazzi and Aytac (2007) conducted a research to find out how authors value the journals. They found 16 criteria which make the journal important for authors. Readership, time to publish, reputation, copyright restrictions, recommendation, online submission, online journal, open access, impact factor, editorial board, society, non-for-profit publication, publisher name, design, rejection rate, price and previous experience were respectively main criteria utilized by authors to value the journals.

Authors need a cut-off between aforementioned criteria and their aim for publication considering what their affiliated authority requires. Gathering all factors and providing a decision environment is not easy for all the authors. As a solution for this issue, experienced authors follow news about publication policy of journals all the time and try to work only in one or two specialized topics and to publish in special journals.

Ideally, there is no best journal since authors always can find a better one! Authors must recall their publication goals, important selection criteria and environmental conditions before final decision. Finally, the readers of present paper should notice that the consideration of these criteria will not quarantine the publication of their manuscripts in their desired journal because there are many other unreported criteria pertaining to journals decisions and some of these factors such as political issues and editorial interests are beyond the scientific manners.

Ethical issues

Not applicable for this paper.

Conflicts of interests

Farhad Shokraneh and Roghayeh Ilghami are paid as editors in editorial office of *BioImpacts*. Also, Alireza Amanollahi is one of the honored editors of *Journal of Health Administration*. Authors declared that their affiliations may affect content of this paper but this paper does not reflect thoughts of their affiliated journals.

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References

Armstrong JS. 1997. Peer review for journals: Evidence on quality control, fairness, and innovation. Science and Engineering Ethics, 3(1), 63-84.

Aydıngöz Ü. 2010. Ways to improve a journal's impact factor in the online publication era. Diagn Interv Radiol, 16, 255-256.

Bellini C. 2012. Cited or read? The Lancet, 379, January 28,

Bornmann L and Daniel HD. 2005. Does the h-index for ranking of scientists really work? Scientometrics; 65(3), 391-392.

Burrows S and Moore M. 2011. Trends in Authorship Order in Biomedical Research Publications. Faculty Research, Publications, and Presentations, Paper 1. Available from: http://scholarlyrepository.miami.edu/health_informatics_resear ch/1 [Retrieved March 21, 2012].

Costas R and Bordons M. 2007. The h-index: Advantages, limitations and its relation with other bibliometric indicators at the micro level. Journal of Informetrics, 1(1), 193-203.

Davis PM. 2011. Open access, readership, citations: a randomized controlled trial of scientific journal publishing. FASEB J, 25, doi: 10.1096/fj.11-183988.

Dong P, Loh M and Mondray A. 2005. The "impact factor" revisited. Biomedical Digital Libraries, 2:7, doi: 10.1186/1742-5581-2-7.

Errami M, Wren JD, Hicks JM and Garner HR. 2007. eT-BLAST: a web server to identify expert reviewers, appropriate journals and similar publications. Nucleic Acids Research, 35(Web Server issue), W12-W15.

Fahy K. 2010. How to get published in an international journal. Women and Birth, 23, 43-44.

Frank E. 1994. Authors' criteria for selecting journals. JAMA, 272, 163-164.

Garfield E. 1955. Citation indexes to science: a new dimension in documentation through association of ideas. Science, 122,

Garfield E. 1986. Which medical journals have the greatest impact? Ann Intern Med, 1986, 105, 313-320.

Garfield E. 1996. When to cite. Library Quarterly, 66(4), 449-

Glänzel W. 2006. On the opportunities and limitations of the H index. Science Focus, 1(1), 10-11.

Grant MJ and Booth A. 2009. A typology of reviews: an analysis of 14 review types and associated methodologies. Health Information and Libraries Journal, 26, 91-108.

Ha TC, Tan SB and Soo KC. 2006. The Journal Impact Factor: Too Much of an Impact? Ann Acad Med Singapore, 35, 911-

Hirsch JE. 2005. An index to quantify an individual's scientific research output. PNAS, 102(46), 16569-16572.

ISCU CFRS. 2011. Bias in Science Publishing. International Council for Science, Committee on Freedom and Responsibility in the conduct of Science.

Isfandyari-Moghaddam A, Hasanzadeh M and Ghayoori Z. 2012. A study of factors affecting research productivity of Iranian women in ISI. Scientometrics, 91, 159-172.

Jefferson T, Wager E and Davidoff F. 2002. Measuring the Quality of Editorial Peer Review. JAMA, 287(21), 2786-2790.

Khosrowjerdi M, Zeraatkar N and Vara N. 2011. Publication Delay in Iranian Scholarly Journals. Serials Review, doi: 10.1016/j.serrev.2011.06.004.

Lancaster FW and Smith LC. 1978. Science, Scholarship and the Communication of Knowledge. Library Trends, Winter, 367-388.

Maffuli N. 1995. More on citation analysis. *Nature*, 378, 760.

Makeham JM and Pilowsky PM. 2003. Journal Impact Factors and Research Submission Pressures. ANZ J. Surg, 73, 93-94.

Reedijk J. 2011. Citations and Ethics. Angew. Chem. Int. Ed, 50, 2-3.

Regazzi JJ and Aytac S. 2007. Author-perceived quality characteristics of science, technology and medicine (STM) journals. Brighton: Association of Learned and Professional Society Publishers (ALPSP), 80 pp.

Russell JM. 2001. Scientific Communication at the Beginning of the Twenty-First Century. International Social Science Journal, 53(168), 271-282.

Seglen PO. 1992. How representative is the journal impact factor? Res. Eval, 2, 143-149.

Seglen PO. 1997. Why the impact factor of journals should not be used for evaluating research. BMJ, 314, 498-502.

Shokraneh F and Khan SF. 2009. Plagiarism. In: Kasi PM (editor). Research: What, Why and How? A Treatise from Researchers to Researchers. Bloomington, IN, AuthorHouse, pp 184-192.

Shokraneh F and Zaidi AH. 2009. Citing/Referencing. In: Kasi PM (editor). Research: What, Why and How? A Treatise from Researchers to Researchers. Bloomington, IN, AuthorHouse, pp 193-211.

Smith R. 2006. Peer review: a flawed process at the heart of science and journals. J R Soc Med, 99, 178-182.

Swan A. 1999. 'WHAT AUTHORS WANT': the ALPSP research study on the motivations and concerns of contributors to learned journals. Learned Publishing, 12(3), 170-173.

Thompson PJ. 2007. How To Choose the Right Journal for Your Manuscript. Chest, 132, 1073-1076.

Thyer BA. 2008. Targeting One or More Potential Journals. In: Preparing Research Articles. New York, Oxford University Press, pp. 13-32.

Vinkler P. 1986. Evaluation of some methods for the relative assessment of scientific publications. Scientometrics, 10, 157-177.

Zain SM, Ab-Rahman MS, Ihsan AKAM, Zahrim A, Nor MJM, Zain MFM et al. 2011. Motivation for Research and Publication: Experience as a Researcher and an Academic. Procedia - Social and Behavioral Sciences, 18, 213-219.