



REGULAR ARTICLE

A comparison of downloads, readership and citations data for the Journal of Medical Hypotheses and Ideas



Azam Bazrafshan ^a, Ali Akbar Haghdoost ^b, Morteza Zare ^{c,*}

^a Medical Informatics Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

^b Regional Knowledge Hub for HIV/AIDS Surveillance, Institute for Futures Studies, Kerman University of Medical Sciences, Kerman, Iran

^c Research Center for Modeling in Health, Institute for Futures Studies, Kerman University of Medical Sciences, Kerman, Iran

Received 26 May 2014; revised 7 June 2014; accepted 7 June 2014
Available online 1 July 2014

KEYWORDS

Downloads;
Journal usage indicators;
Altmetrics;
Readership;
Journal of Medical Hypotheses and Ideas

Abstract This article reflects the comparison of downloads, readership and citation data for the Journal of Medical Hypotheses and Ideas. A brief analysis of the journal's recent performance indicates that the journal articles appear to have a high rate of downloads around the world. Its published articles are from a variety of countries and the odds of accepted articles for publication is surprisingly even across regions. However, the rate of received citations to the published articles indicated a lack of considerable impact in scholarly publications. This approach has double value as it shows the overall impact of the journal in social web as well as scholarly publications and also provides future directions for the journal's editorial boards. Altmetrics was also proposed as an alternative to the widely used citation and usage indicators in tracking the impact of individual articles.

© 2014 Tehran University of Medical Sciences. Published by Elsevier Ltd. All rights reserved.

Introduction

The *Journal of Medical Hypotheses and Ideas*, since 2007, has been established to serve as a unique international and

multidisciplinary capacity for the share of ideas and hypotheses in medical context. It brings together a diverse range of specialties from philosophy, science and medicine into a dynamic platform to stimulate debates, discussions and critical evaluation of

* Corresponding author. Postal address: Research Center for Modeling in Health, Ebn Sina Avenue, Jahad Blvd, Kerman, Iran. Tel.: +98 3412263855; fax: +98 3412263857.

E-mail addresses: Bazrafshan.a.83@gmail.com (A. Bazrafshan), Ahaghdoost@kmu.ac.ir (A.A. Haghdoost), Zare_morteza34@yahoo.com (M. Zare).



scientific ideas. To date, it has been unknown whether this journal is successfully doing well in attracting investigators and researchers across the world and to what extent its articles have generated added values for the audiences by informing them of recent debates and ideas which could be applied in their practice.

While the editors and editorial board members of the *Journal of Medical Hypotheses and Ideas* actively work with authors to improve the journal's readership and to reach potential readers, it is also important to monitor the journal's achievement. In response to the journal's editor in chief request, this note is provided to share with readers of the journal the progress seen through these metrics.

A brief analysis of the journal's recent performance indicates that the journal articles appear to have a high rate of downloads around the world. Its published articles are from a variety of countries and the chance of accepted articles for publication is surprisingly even across regions. It seems that the journal has significantly attained good achievements in reaching global attractiveness and influence; however a long road remains to reach the peak of success.

Journal of Medical Hypotheses and Ideas at a glance

In 2012, with a wide range of audiences around the world, this journal received about 48 submissions from a diverse range of countries. Eastern Mediterranean countries indicated to have the highest number of articles submitted (see Fig. 1), possibly because this journal is originated from Iran and local researchers indicated more interests in submitting articles. Impressively, it is found that there was no significant association between geographic regions and the number of articles submitted (P value = 0.20).

Of 48 articles submitted to this journal, 32 articles were rejected for publication (rejection rate = 67%). Eastern Mediterranean had the lowest and Africa had the highest rate of rejection, not statistically significant though (P value = 0.26) (see Fig. 1).

This journal has received an impressive 8702 full-text download which reflects how important it is for audiences in the world. The geographical distribution of downloads was quite wide, the maximum and minimum records were downloaded from America and Africa respectively (see Fig. 2). This could be easily explained by the role of these regions in the share of the world's medical knowledge. America is perceived as

the major source of knowledge production in the world and probably more interested in producing knowledge [1].

No statistically significant association was observed between the number of articles submitted to the journal and number of downloads according to the regions (P value = 0.67). However, it was expected that the number of downloads could be potentially related to the journal's visibility and future rate of articles submitted.

In order to track the impact of articles published in the *Journal of Medical Hypotheses and Ideas*, consider the recent articles mostly downloaded in the social web (see Fig. 2). Interestingly, all articles published in this journal are viewed and downloaded and almost all of them are research articles.

As an example, consider the recent article published in the journal on "targeting and treating multi-drug resistant cancers" [2]. This paper has received an impressive 1587 full-text downloads possibly because this is a research area with currently high innovation. It also reflects how cancer treatment is interesting for clinicians and investigators. Similar examples exist for articles on "cancer nanotherapy" [3] (494 downloads) and "gold nanoparticles as a novel anti-inflammatory treatment" [4] (419 downloads). It is likely that these articles will receive more downloads and also citations sooner or later as cancer treatment is one of the most challenging research areas. Besides, using nanotechnologies for designing new drugs and treatment are increasingly becoming hot research topics.

Although this journal has received impressive number of full-text download across the world, further investigation of received citations from Scopus gave some evidence of the small impact of the journal. Of the 23 articles published in 2012, 17 have not been cited by scholarly publications in Scopus. The average number of citations received for any article was 0.7. It seems that although many readers often download the journal's articles, these download did not result in citations.

The road ahead

Until recently, our understanding of how this journal is doing and whether it has successes in reaching its audiences was limited. However, according to the findings of this brief analysis, the journal articles appear to have a high rate of downloads around the world. Its published articles are from a variety of countries and the chance of accepted articles for publication is surprisingly even across regions. However, the journal's

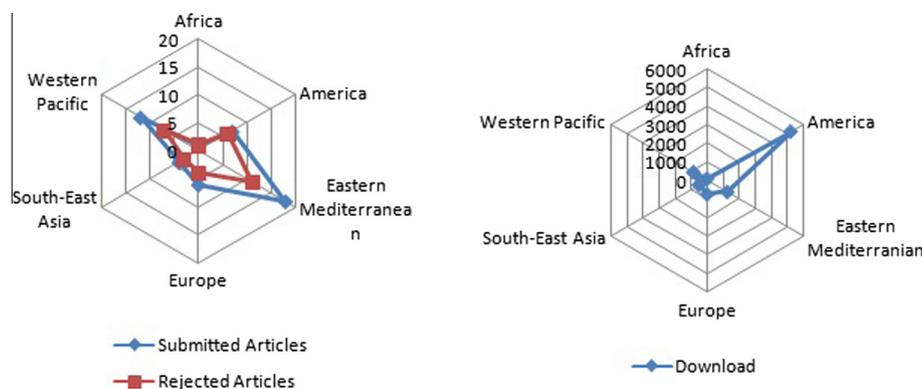


Fig. 1 The number of submitted, rejected and downloaded articles for the Journal of Medical Hypotheses and Ideas in 2012.

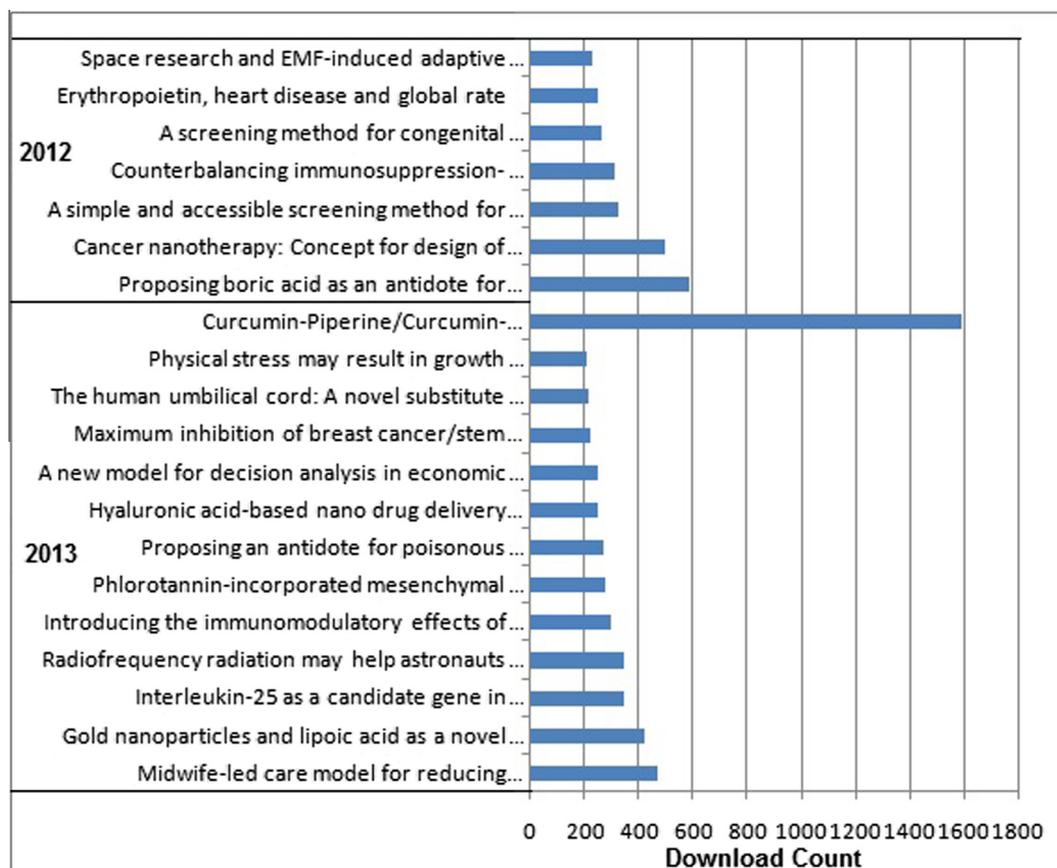


Fig. 2 The number of downloads for selected articles published in the Journal of Medical Hypotheses and Ideas [2–21].

citation overview reflected rather a low impact of the published articles in the journal.

Citations remain the prime source of measuring the quality and impact in science. Citation counts are usually used for assessing the impact of individual articles, researchers and journals. Notwithstanding new opportunities and advances already offered to publishing industry and the new world of multimedia for journals and authors; scholars are increasingly moving their work to the web by reading favorite articles published in journals, commenting and sharing their ideas through social networks. Therefore, these new forms of scholarly activities could reflect scientific impact. The number of article downloads; views and even posted comments in social networks and scholarly blogs could expand our perception of scientific impact [22].

While traditional usage and citation indicators fail to track the impact of individual articles, Article-Level Metric currently known as altmetrics [22] focus on the impact of articles besides to traditional citations and usage statistics. These newly added metrics provide valuable information on what impact looks like but also of what's making the impact. Detailed altmetrics statistics also allow speculation about the different ways readers access and make use of scholarly publications in social web [23].

With these new metrics and social web capacities, it is recommended to expand the journal's ability to integrate traditional scientific reports with more friendly interfaces and media. Since the journal's editors' aim is to make it more

attractive than ever, it is encouraging that using these new opportunities will substantially promote the journal's visibility and attractiveness in the eyes of clinical readers.

Journal editors are also recommended to make great inroads in using altmetrics, as these metrics provide new steps in evaluating the performance of individual articles published in the journal. That is "How many of our articles are being viewed or downloaded and for how long?" and even "are our articles cited by blogs, social and lay media outlets" [24,25]. There is also a variety of facilities enabling editors to expand their readers' immediate participation and feedback after reading articles. Besides, it is clear that the journal needs to publish articles in more innovative and hot research areas to indicate its presence in the competing world of scholarly publications. Exploring new authors and application of innovative opportunities of the social web and social networks could help the journal editors increase their attractiveness and visibility.

Some piece of evidence suggested that altmetrics data (exp. Number of download) can be used to predict the number of future citations to articles [26]. Moreover, most altmetrics were found to have a statistically significant positive correlation with the citation [27]. Although this gives some evidence of the validity of altmetrics as an impact indicator, citation counts remain the primary and the most important measure of impact because of their intimate connection with the text of article [28]. Therefore, the journal's editors are strongly encouraged to develop and implement strategies to improve the journal's citations. Identifying and inviting highly cited

researchers from innovative and novel research fields to participate in the journal's editorial board; invited perspectives and comments from substantial readers and targeting highly innovative research fronts are needed to promote the impact of the journal's articles. Emphasis is placed on developing an international and geographically broad spectrum of researchers across the globe to make the editorial board more supportive and prestigious.

By providing a better understanding of how the Journal of Medical Hypotheses and Ideas is doing and by taking the advantages of the new media and opportunities, it is believed that the journal could respond more systematically and effectively to its diverse range of audiences and readers across the world.

References

- [1] Leydesdorff L. World shares of publications of the USA, EU-27 and china compared and predicted using the new interface of Web of Sciences versus Scopus. *El profesional de la información* 2012;21(1):1–21.
- [2] Moorthi C, Kathiresan K. Curcumin-Piperine/Curcumin-Quercetin/Curcumin-Silibinin dual drug-loaded nanoparticulate combination therapy: a novel approach to target and treat multidrug-resistant cancers. *J. Med. Hypotheses Ideas* 2013;7(1): 15–20.
- [3] Wiwanitkit V. Cancer nanotherapy: concept for design of new drug. *J. Med. Hypotheses Ideas* 2013;7(1):3–4.
- [4] Ghanizadeh A. Gold nanoparticles and lipoic acid as a novel anti-inflammatory treatment for autism, a hypothesis. *J. Med. Hypotheses Ideas* 2012;6(1):40–3.
- [5] Mortazavi SMJ et al. Counterbalancing immunosuppression-induced infections during long-term stay of humans in space. *J. Med. Hypotheses Ideas* 2013;7(1):8–10.
- [6] Wiwanitkit V. Erythropoietin, heart disease and global rate. *J. Med. Hypotheses Ideas* 2013;7(1):5–6.
- [7] Cheng Y et al. The human umbilical cord: a novel substitute for reconstruction of the extrahepatic bile duct. *J. Med. Hypotheses Ideas* 2012;6(1):7–11.
- [8] Goodarzi N, Ghahremani MH, Dinarvand R. Hyaluronic acid-based nano drug delivery systems against cancer stem cells. *J. Med. Hypotheses Ideas* 2012;6(2):65.
- [9] Piri Z, Esmailzadeh A, Hajikhanmirzaei M. Interleukin-25 as a candidate gene in immunogene therapy of pancreatic cancer. *J. Med. Hypotheses Ideas* 2012;6(2):75–9.
- [10] Mazaheri T, Esmailzadeh A, Mirzaei MHKH. Introducing the immunomodulatory effects of mesenchymal stem cells in an experimental model of Behçet's disease. *J. Med. Hypotheses Ideas* 2012;6(1):23–7.
- [11] Shojaei S, Gardaneh M. Maximum inhibition of breast cancer/stem cell growth by concomitant blockage of key receptors. *J. Med. Hypotheses Ideas* 2012;6(1):44–9.
- [12] Wang Z, Sun W, Zhou H. Midwife-led care model for reducing caesarean rate: a novel concept for worldwide birth units where standard obstetric care still dominates. *J. Med. Hypotheses Ideas* 2012;6(1):28–31.
- [13] Nikfar S. A new model for decision analysis in economic evaluations of switchable health interventions. *J. Med. Hypotheses Ideas* 2012;6(1):12–5.
- [14] Ali TF, Hasan T. Phlorotannin-incorporated mesenchymal stem cells and their promising role in osteogenesis imperfecta. *J. Med. Hypotheses Ideas* 2012;6(2):85–9.
- [15] Irfan M et al. Physical stress may result in growth suppression and pubertal delay in working boys. *J. Med. Hypotheses Ideas* 2012;6(1):35–9.
- [16] Solgi R, Abdollahi M. Proposing an antidote for poisonous phosphine in view of mitochondrial electrochemistry facts. *J. Med. Hypotheses Ideas* 2012;6(1):32–4.
- [17] Soltani M et al. Proposing boric acid as an antidote for aluminium phosphide poisoning by investigation of the chemical reaction between boric acid and phosphine. *J. Med. Hypotheses Ideas* 2013;7(1):21–4.
- [18] Abdollahi H, Teymouri M, Khademi S. Radiofrequency radiation may help astronauts in space missions. *J. Med. Hypotheses Ideas* 2012;6(2):66–9.
- [19] Wiwanitkit S, Wiwanitkit V. A screening method for congenital thrombopathies using an impedance haematology counter. *J. Med. Hypotheses Ideas* 2013;7(1):7.
- [20] Brahim M et al. A simple and accessible screening method for congenital thrombopathies using an impedance haematology counter. *J. Med. Hypotheses Ideas* 2013;7(1):11–4.
- [21] Mortazavi SMJ. Space research and EMF-induced adaptive responses. *J. Med. Hypotheses Ideas* 2013;7(1):1–2.
- [22] J. Priem, et al., Altmetrics: a manifesto. 2010 [cited 2014 18.5]; Available from: <<http://altmetrics.org/manifesto/>> .
- [23] Fenner M. What can article-level metrics do for you? *PLOS Biol.* 2012;11(10):e1001687.
- [24] J. Priem, H. Piwowar, B. Hemminger, Altmetrics in the wild: Using social media to explore scholarly impact. arXiv, 2012 (1203.4745.).
- [25] T. Yarkoni, Designing next-generation platforms for evaluating scientific output: what scientists can learn from the social web. 2011, SSRN eLibrary.
- [26] Thelwall M. A brief history of altmetrics. *Res. Trends* 2014;37: 3–5.
- [27] Thelwall M et al. Do altmetrics work? Twitter and ten other candidates. *PLOS One* 2013;8(5):e64841.
- [28] Daniel Jr R. Predicting citation counts. *Res. Trends* 2014;37: 6–10.