ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://ijmsweb.com

Indian Journal of Medical Sciences

Viewpoint

Trends of publication in the orthopedic journals from India: A bibliometric analysis

Mohit Kumar Patralekh[1], Abhishek Vaish[2], Raju Vaishya[3], Ashish Gulia[4], Hitesh Lal[5]

[1]Department of Orthopaedic, Central Institute of Orthopaedics, Vardhman Mahavir Medical College and Safdarjung Hospital, Departments of [2]Orthopedics, [3]Orthopaedic Surgery, Indraprastha Apollo Hospitals, New Delhi, [4]Bone and Soft Tissue, Tata Memorial Hospital, Mumbai, Maharashrta, [5]Department of Orthopaedics, Sports Injury Centre, Safdarjung Hospital, New Delhi, India.

***Corresponding author:**
Mohit Kumar Patralekh, Chief Medical Officer and Orthopaedic Surgeon, Central Institute of Orthopaedics, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India.

mohitkumarpatralekh@gmail.com

Received : 25 January 2021
Accepted : 13 February 2021
Published : 29 May 2021

DOI:
10.25259/IJMS_39_2021

Quick Response Code:

ABSTRACT

We have studied the growth of three Indian orthopedic journals indexed in PubMed, Scopus, and EMBASE, namely, Indian Journal of Orthopaedics (IJO), Journal of Clinical Orthopaedics and Trauma (JCOT), and Journal of Orthopaedics (JOO). SCOPUS and PubMed databases (2015–2020) were used. The numbers of papers published and citations received to date (since 2015) in these journals were as follows: JCOT (1158 articles; 2060 times), JOO (1070 articles; 2429 times), and IJO (888 articles; 1872 times). The publication and citation trends are rising for JCOT and JOO and have been constant for the IJO. All three journals have seen significant growth and have acted as torch bearers of knowledge shared by orthopedic surgeons in India and Asia.

Keywords: Asia, Orthopedics, PubMed, Journal, Orthopedics, Traumatology, Research, Publications

INTRODUCTION

Peer-reviewed scientific journals play an important role in disseminating knowledge generated by novel research findings and disclosing new technology and innovations. In medicine, they also help clinicians treat patients at large by raising awareness about the field's newer understanding and by enabling them to make evidence-based decisions for patient care. Such journals provide a means for preserving documentary evidence of research for the present and future readers, give a forum for scientific scrutiny and constructive criticism by the peers and encourage researchers for future research.[1] Standard scientific journals are peer-reviewed, publish credible research in the shortest time possible after submission, and are globally available.[2-5]

Only three orthopedic journals, which publish all types of research articles from India, are indexed in PubMed and Scopus. These include Indian Journal of Orthopaedics (IJO), Journal of Clinical Orthopaedics and Trauma (JCOT), and Journal of Orthopaedics (JOO). The IJO is an official journal of the Indian Orthopaedic Association (IOA), one of the largest national societies of orthopedic surgeons globally, and has more than 12,000 life members presently. IJO is the oldest Orthopaedic Journal of India, whereas the two other journals are relatively newer ones [Table 1].

Bibliometric study evaluates published articles and book chapters to measure their influence in the scholarly community.

In the present bibliometric analysis, we hypothesized that India's orthopedic journals had shown significant growth in the past 5 years. We included all the three PubMed indexed orthopedic

Table 1: Journal history of the indian orthopaedic journals.

Journal	Official body	Starting year	Number of present regular issues/year	Indexing (in years) Pubmed	Scopus	Publishers
Indian Journal of Orthopaedics (IJO)	Indian Orthopaedic Association (IOA)	1967	06	2009	1974	Wolters-Kluwer(Medknow); migrated to Springer Nature from January 2020[18]
Journal of ClinicalOrthopaedics and Trauma (JCOT)	Delhi Orthopaedic Association (DOA)	2010	06	2012	2010	Elsevier
Journal of Orthopaedics (JOO)	Prof. P.K. Surendran Memorial Educational Foundation	2004	06	2013	2013	Elsevier

journals from India. In the previous 5 years, we analyzed how these journals progressed and speculated about the likely factors responsible for these journals' success.

MATERIAL AND METHODS

It is a cross-sectional bibliometric study over the past 5 years, where we analyzed journal metrics from the PubMed and Scopus databases. We have included orthopedic journals published from India and indexed in PubMed Central and Scopus in our analysis, but excluded journals with orthopedic content but not as the main aim and scope (for example, Journal of Hand and Microsurgery). To retrieve all the papers published in IJO, JCOT, and JOO from the Scopus, we have used the advanced search feature and the following strategy: SRCTITLE (IJO) for IJO, SRCTITLE (JCOT) for JCOT, and SRCTITLE (JOO) for JOO. We restricted the search to the period from January 1, 2015, to December 31, 2020. SCOPUS (Elsevier) had released citation data for 2019 on June 19, 2020. We have conducted all searches on SCOPUS and PubMed, from 2015 to 2020. We further restricted our search to the journal selected. In PubMed, we used PubMed abbreviations as search terms "J Clin Orthop Trauma.;" "Indian J Orthop.;" and "J Orthop." and the search was restricted to the period 2015–2020. The search strategy is described in Table 2.

We have analyzed various journals' parameters, with primary outcome measures being the journal related outcomes: Number of papers, citations, and cite scores. We also considered other features of journal functioning, including editorial board (type, region, subsections, turnaround times, and reviews) and manuscript features (submissions, rejection, regions, numbers, and frequency) wherever available for qualitative summarization.

We also included the data on editors and editorial board members along with their international diversity. Furthermore, we have looked into the other aspects such as special issues, the number of articles, authors and their institutions and countries, citations of these papers, acceptance rates, cite scores, and source normalized impact per paper, using SCOPUS, and SCIMAGO journal ranking websitehttps://www.scimagojr.com/ wherever available. We also used the data provided by Elsevier on https://journalinsights.elsevier.com/ for JCOT and JOO. We also compared cite scores' growth with that of other leading orthopedic journals from Asia journals (Journal of Orthopaedic Surgery – Hong Kong, Chinese Journal of Traumatology, and Journal of Orthopaedic Science from Japan and several others).

Table 2: The search strategy.

Journal	Search strategy on scopus	Search strategy on PubMed
IJO	SRCTITLE (Indian journal of Orthopaedics)	'Indian J Orthop.'
JCOT	SRCTITLE (Journal of Clinical Orthopedics and Trauma)	'J Clin Orthop Trauma.'
JOO	SRCTITLE (Journal of Orthopaedics)	'J Orthop.'

RESULTS

Editors and editorial board

All the three journals have international representation in their Editorial board, apart from distinguished experts of several general and subspecialties of orthopedics and trauma. These also have included experts for basic science, statistics, and health-care administrators to address the variety of papers received by these journals.

All three websites have provision for registration of new reviewers.

Papers published and publication trends

From January 1, 2020, to December 31, 2020, the JCOT published 1158 papers as revealed by the Scopus and 1048 articles as per PubMed data. A rising was seen in the number of publications in the past 5 years, in both the JCOT and JOO, reflecting their rapid growth. A very similar rising trend in publications was evident for the JOO, which has 1066 publications on PubMed and 1070 on the Scopus, in the same last period. However, for the IJO, which has 888 publications in Scopus and 798 papers in PubMed, the trend

is almost constant, reflecting a consistent number of issues and publication rate in this period [Figure 1]. The numbers of papers published and citations received to date (since 2015) in these journals were JCOT (1158 papers; 2060 times), JOO (1070 papers; 2429 times), and IJO (888 papers; 1872 times).

The JCOT has witnessed an accelerating rise in the submission rate, particularly over the past 45 years, and their rejection rate has been stable between 60 and 70%. The number of issues per year for JCOT was increased from two to four (2018) and a couple of supplementary issues per year to give space to these manuscripts. JCOT increased the number of issues to six per year, from 2019, with no restrictions on the number of pages per issue, to meet the demand of rising submissions and to allow their earlier publication. For the JOO, the acceptance rate initially rose and peaked in 2014 (60%), but remained similar in 2015 (57.1%), declined to 36.5% in 2016, and again rose to 43.8% in 2019. Detailed data are not available for the IJO, but statistics on its submission site says that it had an acceptance rate of 5% in 2018. A recent editorial[2] mentions that 90%–95% of articles are unsolicited in IJO with a rejection rate around 86%–88%. Rejection rates in 2019 and 2020 were 80% and 86%, respectively (Personal communication, Medknow).

Citation trends

The 684 papers in JCOT were cited 1386 times. The latest h index of JCOT, as calculated from SCOPUS database, is 19. The 655 papers in JOO have been cited a total of 1818 times, whereas 598 papers in IJO were cited 1458 times. The latest H index of JOO is 16, and that of the IJO is 32, as calculated in the Scopus database. There has been a significant rise in citations received by Indian journals over the past 5 years (2015–2019, $P = 0.017$, Freidman's test, approaching statistical significance). A rising trend in citations received by the papers is evident in Figure 2. It reflects their popularity, global acceptance, and scientific respect increasingly being received by these journals in the last few years. Cite scores have also shown a rise ($P = 0.166$, Freidman's test). So far, only IJO is listed in the Science Citation Index (SCI) and has an impact factor (for the year 2019, released in June 2020 by Clarivate analytics) of 0.92, which has declined a little as compared to the previous year (0.978). The applications of the other two journals for SCI are pending a decision.

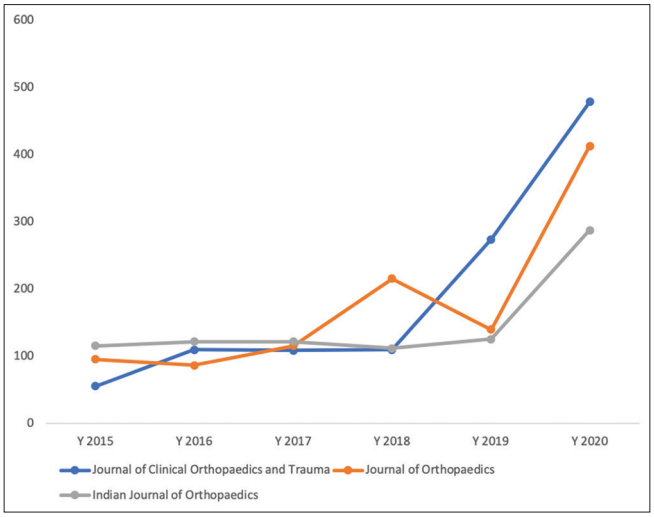

Figure 1: Publication trends of the Indian Orthopaedic Journals.

Comparison with other well established International Orthopaedic Journals

We have compared the cite scores with that of some prominent international orthopedic journals, including American Journal of Sports Medicine (9.6), Bone and Joint Journal (7), Journal of Bone and Joint Surgery (6.9), Clinical Orthopaedics and Related Research (4.7), and International Orthopaedics (4.8) – latest (2019) cite scores have been indicated in parenthesis. This comparison suggests that Indian journals can be at par with and become a prominent orthopedic journal of international importance. Cite score comparison trend with other well-known international orthopedic journals is shown in Figure 3.

Other metrics such as cite score, SNIP, and SCImago ranking are depicted in Table 3.

Most prolific authors and countries

Although most publications in the JCOT and IJO belonged to Indian authors, the authors from all over the world also contributed to it. It reflects the global diversity of these journals. Furthermore, it fulfills these journals' aim to be a medium for knowledge sharing by Indian authors, with their native colleagues and the rest of the world at the same time. JOO had more authors from the USA, the UK, and Japan, compared to India [Figure 4].

The evolution and journey of the Orthopaedic Journals of India

The IJO is being published regularly since 1967. Initially, the IJO was published with two issues per year for 26 years until

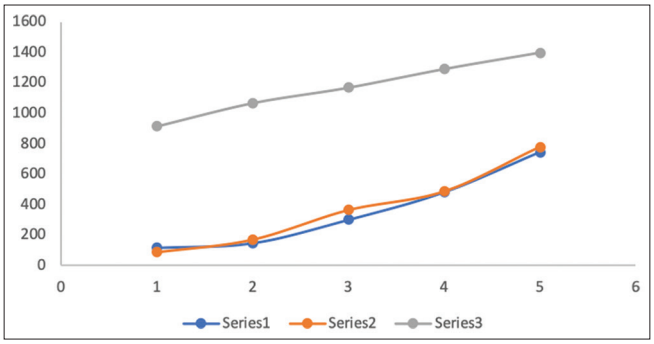

Figure 2: Citation trends of the Indian Orthopaedic Journals.

1993, and then, its frequency of publication was increased to four issues per year, from 1994 till 2011. Now, its frequency of publication is six per year. The IJO had a facelift in 2006, with its website (www.ijoonline.com) with all modern journal website features, expansion of editorial board to include international experts and was included in PubMed/PubMed Central in October 2009 [Table 1].[2-5]

Table 3: Latest journal metrics (2019) of the Indian Orthopaedic journals.

Metrics (2019)	IJO	JCOT	JOO
Cite score	1.6	1.3	1.7
Rank	150 (42th percentile)	170 (35th percentile)	146 (44th percentile)
SNIP	0.876	0.585	0.7
SJR	0.39	0.469	0.502
H index	28	15	14
Documents by year	109	306	140

Source Scopus, SCImago lab, Elsevier and Papers.[2,24] SNIP: Source normalized impact per paper by year, SJR: SCImago journal rank by year

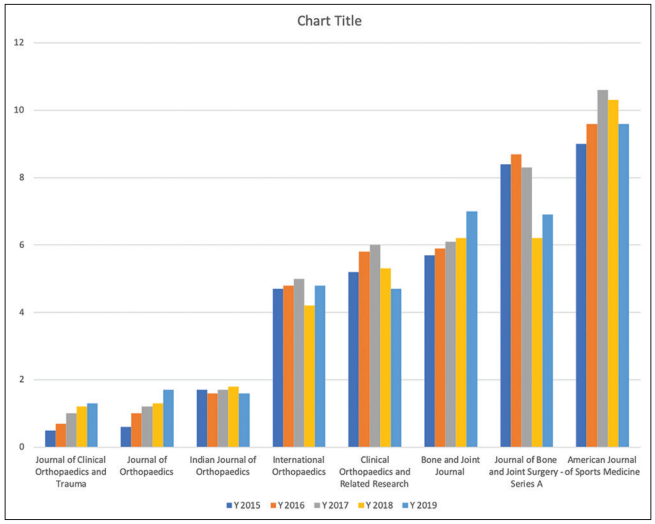

Figure 3: Cite score comparison of the Indian Orthopaedic Journals with the other known International Orthopaedic journals.

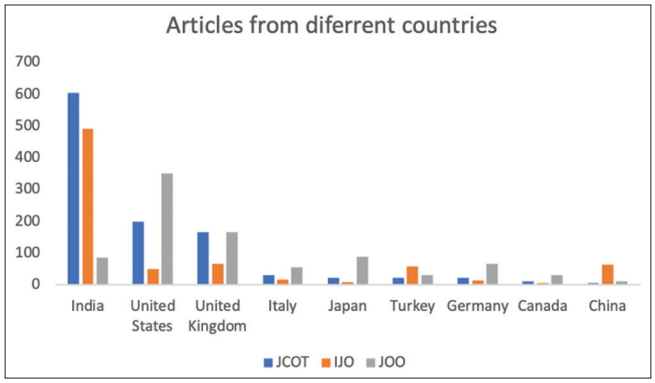

Figure 4: Supplementary material: Extra Fig: Authors' countries.

The JOO is an official publication of the Prof. PK Surendran Memorial Educational Foundation, related to Calicut Ortho Alumni Association. It was started in 2004 and was included in PubMed/PMC from 2013 [Table 1]. The JOO has an international readership, and its website recommends that all submissions be aimed at specifying something about the setting in which the work was conducted. However, now, more papers are from the USA and the UK, and Japan than India.[6-8]

The JCOT is the official scientific publication of the Delhi Orthopaedic Association, with the present member's strength of around 1200. It is a successor of the "Delhi Journal of Orthopaedics." JCOT witnessed remarkable growth since its launch in 2010 and more so after its inclusion in PubMed/PMC in 2012. The JCOT was included in SCOPUS in 2010; all the articles from 2010 are available on SCOPUS.[9]

DISCUSSION

A rising trend was seen in the number of papers published in all the three Indian Orthopaedic Journals, reflecting a rapid growth. These journals have seen a marked increase in rate of submission, especially in the past 4 years. The rejection rates are also significantly high (more than two-third). A significant increasing trend in the number of citations received by these three journals reflects a growing global acceptance and recognition of these journals, and of the work of authors who choose to publish here.

A trend in scientific research is indicated by citations received per year. A paper receiving increasing citations reflects a rising trend in that specific topic. It indicates the value given by the author of a paper to others' work on related areas.[10] Citation counts also vary with different databases.[11-14] We believe that Scopus is a better database, as it has quite comprehensive coverage and does not miss essential papers. In contrast, the Web of Science coverage is limited, and Google Scholar is too broad and non-specific.[11] Therefore, we have used SCOPUS data for most of the analysis in the present paper. Like those published in relatively new JCOT and JOO journals, recently published articles are at a disadvantage, as citations only rise with time. Although the IJO is somewhat old but appeared online only after 2006, it may be considered a "newer" journal on the web. It had received only two citations before coming online, and the citation counts rose significantly after its online presence, especially after inclusion in PubMed [Figure 3]. Therefore, it is expected that articles published in JCOT and JOO would accordingly rise in citation numbers and popularity as time passes.

Cites score is calculated from all citations recorded in Scopus within 1 year to content published in the past 3 years, divided by the number of items published. All the three Indian Orthopaedic Journals present have a cite score greater than 1.0, despite their relatively recent entry and is likely to increase shortly, considering the trends of the last few years. As per the

cite score ranking system of the Orthopaedic Indian Journals, the current global ranking lies between 49th and 35th percentile [Table 1] of all orthopedics and sports medicine journals in the world (Q3).[15,16] At present, there is a significant gap between these Indian journals and prominent international orthopedic journals. These Indian journals have carved an essential niche for them among the Asian orthopedic journals, and indeed, a place now exists for them internationally.

PlumX Metrics is Plum Analytics' comprehensive, item-level metrics that indicate the ways people interact with individual research output (articles, conference proceedings, book chapters, and many more) in the online environment. Inclusion in the Web of Science and the impact factor of a journal is provided after its application to Clarivate. They analyze various aspects of the journal and take a decision, which takes instead a long time of about 1 year, from submission to their first decision. If a journal receives its approval, it is given an impact factor.[15]

Apart from impact factor and cite score, there are several other metrics (e.g., PlumX Metrics, SNIP, SJR, and h index), which have been developed by SCOPUS and can be used to evaluate journal quality.[15,16]

The h-index is a number intended to represent both the productivity and the impact of a particular scientist or scholar, or a group of scientists or scholars (such as a departmental or research group). The h-index is calculated by counting the number of publications for which have been cited by other authors at least that same number of times. These papers constitute the H-core for a subject area or Journal. h5-index is the h-index for articles published in the past 5 complete years. h5-index is the h-index for articles published in the past 5 complete years. It is the largest number h such that h articles published in 2015–2019 have at least h citations each. h5-median for a publication is the median number of citations for the articles that make up its h5-index. All these Orthopaedic Indian Journals have the h-index in double figures, with the IJO having ta maximum of 28, which indicates its seniority, compared to the other two journals [Figure 5].

Acceptance rate refers to the percentage of all articles submitted to this journal in a calendar year accepted for publication in the same year. Both the number of submitted papers and the number of accepted papers are shown to indicate the journal's size. The articles that were withdrawn are not included in this data. All these three Indian journals have rejection rates of two-third or more, comparable to any premier international journal.

Global reach

Quality research work must be made readily available to other research workers around the world. Further research can be performed on the topic, and the findings can be utilized in clinical practice. The JCOT publishes most of the articles within a few days of acceptance as "Published as Ahead of Print" after completing the typesetting and language editing process. All the items are indexed in Scopus, and after 2012, in PubMed. The Journal supports both traditional publishing and open-access models. Free to use, full text is available in PubMed Central after 1 year embargo period. The JCOT has a dual publication policy, where there is an option of an open access also if the authors opt to choose it. The increased global visibility of the journal attracts better manuscripts and also enhances the citation as received for the published papers.

The IJO has placed all the back issues since its inception (1967–2006) on their website. It has helped in increasing the citation received by these older articles. The IJO provides a free facility to download the PDF of any published article in India and HTML version globally. This step has contributed to increased global visibility of the IJO and has given it a quantum leap in overseas submission and citations.[2]

Recent work has shown a poor representation of research work from developing nations in Orthopaedic Journals published from the western world. The authors have even concluded that they are neglecting orthopedic problems encountered by three-fourth of the global population.[17] One of the essential aims of all these three Indian journals has been to fill this knowledge gap in the orthopedic literature by accepting and publishing quality papers from developing world relevant to their inherent problems.

Online submission system and the peer-review process

The entire submission and review process for JCOT and JOO are performed on EVISE, a user-friendly system recently launched by Elsevier. This system efficiently manages the double-blind peer review and leading to reduced editorial processing times. In JCOT, after an initial review by one of the editorial board members, the manuscript is sent to subject experts, who are either selected from the existing reviewer database of the journal or a much broader expert database. These reviewers are then included in the journal reviewer database, and editors can also add appropriate reviewers. Therefore, the

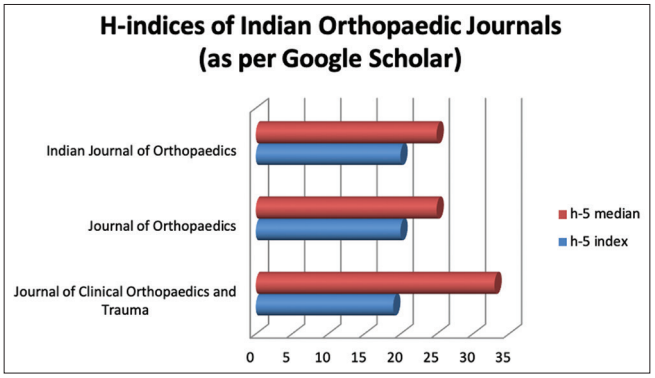

Figure 5: H-indices of journals.

reviewer database is increasing. It now contains numerous expert reviewers from all subspecialties and research areas, including basic sciences epidemiology and statistics as per the paper's subject matter provided by SCOPUS. Based on at least two quality reviews and his judgment, the Editor-in-Chief is informed about the decision. The Editor takes the final decision on all manuscripts in Chief based on all the available comments and his manuscript evaluation. The system allows authors to verify the style and accuracy of references. The editorial team can also check for any possibility of plagiarism or similarity, as the "ithenticate" tool is made available to the editors for this purpose. The corresponding author is notified by regular emails when the manuscript is sent for revision, at the time of acceptance, proof checking, online publication ahead of print, and final printing. Proof Central has made final proof checking and typesetting very convenient. High-quality management of the publication process led to the authors' enhanced confidence, thereby incentivizing more and more good quality manuscripts. The journal is, therefore, able to choose progressively better manuscripts for publication. However, any manuscript containing a message of academic or clinical value, particularly relevant to developing countries, is not ignored. Following final acceptance of typesetting and changes as advised by the corresponding author, the manuscript is immediately made available on the journal website and Scopus and Science direct. It appears on PubMed sometimes after a lag, that is, after the formal publication of an article in a regular issue of the journal, and is made available free on PMC after an embargo period of 1 year. The IJO website is managed by Wolters Kluwer and provides a somewhat different manuscript submission system, much more cumbersome than that of Elsevier. It has migrated to Springer Nature from January 2020.[18]

Special issues

Several special issues have been published by the JCOT and IJO, in the past few years, on some highly specialized and burning topics. These special issues contain invited articles from worldwide field experts, and submission of is also welcomed from all other interested authors on relevant topics by publishing regular advertisements. All the special issues were received warmly by the readership and enlighten them about current trends in an upcoming topic. These articles have also achieved higher readerships and citations.

Abstracting, indexing, and digital archiving

All these three Indian journals have been included in major indexing and abstracting bodies, including PubMed, PubMed Central, Scopus, EMBASE/Excerpta Medica, Index Copernicus, and Indian Science Abstracts. It fulfills the Medical Council of India recommendations and the University Grants Commission for the faculty promotions.[19,20] Furthermore, the journal contents are regularly deposited in Archival databases, including Gale Academic OneFile, EBSCOhost, and TOC Premier, which ensure additional preservation, protection, and availability of all contents in the future. The journal hard copy is sent to the medical college libraries in India, society members, and those who demand it. The contents are also made available for all major global university libraries through the databases mentioned above. Definition of an international journal is yet to be established, but editorial board members and authors from overseas; worldwide circulation and citations; and inclusion in international indexing databases are important features. Hence, all three Indian Orthopaedic Journals fulfill these criteria and deserve high recognition from the international community.[21]

Papers like the present one, highlighting the evolution and history, have been published earlier by several orthopedic journals.[21-23] We felt that it is appropriate to reflect on the growth of Indian Orthopaedic Journals also. India is a large country with a vast population of 1340 million and their musculoskeletal problems, which are entirely different from Western countries. Hence, the Indian journals must highlight their population base's issues and provide solutions for these problems, which may not be published or highlighted in the Western journals. None of the three journals are indexed in Medline, but it is hoped that they may appear in this prestigious indexing body in due time, considering their unique growth pattern. The IJO was included in Web of Science and SCI Expanded from October 2009. The advantage of these was that the IJO received the first impact factor (0.285) in 2011. We feel that several factors, namely, editorial efficiency, the publication of clinically relevant articles, and presenting special issues on hot and burning topics, etc., have led to the steady progress of JCOT and IJO. The other factors, such as supportive editorial board members, editorial efficiency, passionate reviewers, excellent clinical and research material, valuable readers, and professional publishers, are the critical factors in these journals' success.

Some of the limitations of our study include the fact that these journals are published by different publishers, who may offer differing avenues for disseminating articles, which may undermine any effort made at a comparative evaluation of these journals. The three journals have different ages, IJO being senior most, followed by JOO and JCOT in that sequence. This may undermine the meaning of any effort at comparison using journal metrics only and that too only for the past 5 years. Journals starting publication at an earlier time may be an advantage as they may be more known to researchers and may, therefore, attract better manuscripts. All three journals are available on SCOPUS and PubMed, whereas only IJO is available on the Web of Science in these years, so to ensure uniform comparison, we have included only Scopus and PubMed databases in our study. Based on a study of this journey, we can provide 10 suggestions [Table 4] which can help similar journals from developing countries to perform better and contribute to uniformity in global dissemination on evidence.

Table 4: Suggestions for similar journals from developing countries.

S. No.	Suggestions
1.	Structured format of journal
2.	Indexing
3.	Social media presence (Twitter, Facebook, LinkedIn, and YouTube)
4.	Affiliation with parent regional/national societies
5.	Improving leadership and involvement of interested professionals from native country and outside in the editorial board
6.	Section editors as per sub-specialties and their empowerment
7.	International peer group support
8.	Standardization of reviewing process
9.	Prudent financial planning
10.	Selecting a suitable publisher

All the three Indian Orthopaedic Journals, that is, IJO, JCOT, and JOO have grown in size and relevance the recent past and have created a niche for themselves in the international medical literature. These Indian journals have represented as the torchbearer of knowledge shared by orthopedic surgeons in India and Asia regarding problems peculiar to this region, besides the rest of the world. Inclusion in the SCOPUS, EMBASE, and PubMed/PubMed Central of these Indian journals has contributed to the markedly increased international relevance.

Acknowledgment

We want to thank Dr. Lalit Maini and Dr. Vikas Khanduja for their critical reading and constructive comments, which have helped us improve the manuscript.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

Dr Ashish Gulia is the editor of this journal.

REFERENCES

1. Jain AK, Sahu DK. Indian journal of orthopaedics: The journey so far. Indian J Orthop 2010;44:1-4.
2. Jain AK, Dhammi IK. Indian journal of orthopaedics: An audit of 12 years. Indian J Orthop 2019;53:1-4.
3. Jain AK, Kumar S. Indian journal of orthopaedics: Journey continues. Indian J Orthop 2013;47:1-5.
4. Dhammi IK. Road map of journal for coming years. Indian J Orthop 2016;50:1-2.
5. Jain AK. Indian journal of orthopaedics: Exploring a new horizon. Indian J Orthop 2011;45:1-2.
6. Journal of Orthopaedics (Elseviers); 2019. Available from: https://www.journals.elsevier.com/journal-of-orthopaedics. [Last accessed on 2019 Feb 24].
7. Journal of Orthopaedics (Old); 2019. Available from: http://www.jortho.org/index.html. [Last accessed on 2019 Feb 24].
8. Journal of Orthopaedics (NLM Catalog); 2019. Available from: https://www.ncbi.nlm.nih.gov/nlmcatalog/101233220. [Last accessed on 2019 Feb 24].
9. Aims and Scope of the Journal, from Official Website of Journal of Clinical Orthopaedics and Trauma; 2018. Available from: https://www.journal-cot.com/content/aims?code=jcot-site. [Last accessed on 2018 Sep 12].
10. Kelly JC, Glynn RW, O'Briain DE, Felle P, McCabe JP. The 100 classic papers of orthopaedic surgery: A bibliometric analysis. J Bone Joint Surg Br 2010;92:1338-43.
11. Jacso P. As we may search-comparison of major features of the web of science, scopus, and google scholar citation based and citation-enhanced databases. Curr Sci 2005;89:1537-47.
12. Fingerman S. Web of science and scopus: Current features and capabilities. Issues Sci Technol Librariansh 2006;48:4.
13. Martyn J. Bibliographic coupling. J Doc 1964;20:236.
14. Waltman W. A review of the literature on citation impact indicators. J Inform 2016;10:365-91.
15. Elsevier Research Metrics Guidebook; 2019. Available from: https://www.elsevier.com/research-intelligence/resource-library/research-metrics-guidebook. [Last accessed on 2019 Mar 26].
16. SCImago Journal Ranking; 2019. Available from: https://www.scimagojr.com/journalrank.php. [Last accessed on 2019 Mar 26].
17. Aluede EE, Phillips J, Bleyer J, Jergesen HE, Coughlin R. Representation of developing countries in orthopaedic journals: A survey of four influential orthopaedic journals. Clin Orthop Relat Res 2012;470:2313-8.
18. Poduval M, Maini L. Heralding change: The evolution of the IJO in 2019. Indian J Orthop 2019;53:679-81.
19. Medical Council of India. Clarification about Research Publications in the Matter of Promotion for Teaching Faculty in a Medical College/Institutions. Available from: http://www.mciindia.org/circulars/circular-03.09.2015-teq-promotion-publication.pdf. [Last accessed on 2019 Feb 24].
20. UGC Approved Health Science Journals; 2018. Available from: https://www.ugc.ac.in/journallist/subjectwisejurnallist.aspx?eid=sgvhbhrokhnvy2lhbcbzy2llbmnlkq==. [Last accessed on 2018 Oct 01].
21. Huh S, Choi TJ, Kim SH. Using journal article tag suite extensible markup language for scholarly journal articles written in Korean. Sci Ed 2014;1:19-23.
22. Cowell HR. A brief history of the journal of bone and joint surgery. Clin Orthop Relat Res 2000;374:136-44.
23. Horan FT. A brief history of the journal of bone and joint surgery (British volume). J Bone Joint Surg Br 2012;94:1586-8.

How to cite this article: Patralekh MK, Vaish A, Vaishya R, Gulia A, Lal H. Trends of publication in the orthopedic journals from India: A bibliometric analysis. Indian J Med Sci 2021;73(1):134-40.