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ORIGINAL PAPER

Journal metrics of the top-ranked Orthopaedic, Medical, and Surgical journals – A cross-sectional, comparative study

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Abstract

Purpose In academic publishing, research metrics play a crucial role in assessing the scientific impact and performance of the published literature, as well as of the journals in which they are published. Several journal-level metrics (JLM) such as the *h*-index of the analysed journals, total citations, total documents, citable documents, references and external citations per document are considered crucial indicators of the importance and reputation of the journals. We hypothesize that journals in the field of Medicine receive more citations than those in Surgical journals like Orthopaedic surgery, and hence have better JLM. This study aims to to assess and compare the JLM of Medical and Surgical journals between two time zones 2017–2019 vs. 2020–2022, i.e., pre and post-COVID-19 pandemic period.

Methods A cross-sectional bibliometric analysis of the top-ranked Orthopaedic, Medical, and Surgical journals was undertaken based on traditional JLM, using the SCImago database from 2017 to 2022. Our analysis focused on identifying trends in the *h*-index of the analysed journals, total citations, total documents, citable documents, references and external citations per document.

Results Overall Medical journals were found to have higher JLM than the Surgical and Orthopaedic journals. The *h*-index of Surgical journals, Medical journals and Orthopaedic journals were comparable between the two periods (pre and -post-COVID-19 pandemic); Total Cites (3 years), total documents (2017), total documents (3 years), total references, and citable documents (3 years) of Surgical journals, Medical journals and Orthopaedic journals were significantly higher in the period 2020–2022.

Conclusion There has been a steady increase in the number of publications from post COVID-19 period. Medical journals have higher JLM than Surgical and Orthopaedic journals. Journal of Bone and Joint Surgery (Am), Annals of Surgery and Diabetes Care were the most published journals in Orthopaedics, General Surgery and Medicine-related topics respectively.

Keywords Bibliometrics · Citations · Publications · *h*-index · SCImago journal rank indicator · Scientometrics · İmpact factor · Publication metrics · Journal Impact Factor

Introduction

In academic publishing, research metrics are frequently used tools to measure the impact and performance of published scientific manuscripts, the journal they are published in, or the publishing author/s [1]. A spectrum of measurements is available to evaluate the quality, impact, and relative reputation of publishing journals, through various journal-level metrics (JLM) [2–4]. These JLM are used to judge and assess the relative importance of peer-reviewed journals based on Citation analysis [5]. Impressive JLM, as a measure of the journal's impact, has become important as a mark of quality in subspecialty fields of medicine, surgery, and allied health sciences [6].

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Articles published in reputed journals with high JLM have the propensity of far-reaching influences on scholastic impact, grant or funding proposals, ranking of academic institutions, and more crucially on clinical practice due to their ability to support Evidence-Based Medicine (EBM) in the delivery of quality patient care [7–9].

Established JLM uses a different methodology to calculate a particular score constructed on its underlying data source, method of calculation, or framework of its use. An ideal JLM should provide both qualitative and quantitative assessments to rank journals [10]. This would be an objective evaluation of the content of published literature, reflecting different aspects of research productivity and impact.

Journal Impact Factor (JIF) or Impact Factor (IF) has been the most widely used JLM for measuring scientific journals [11]. The JIF is calculated by Clarivate Analytics' Web of Science (WOS) database. A higher JIF of a journal indicates that the particular journal is more influential and valued in its sub-speciality field [12]. However, the JIF as a JLM has several drawbacks [13]. In particular, JIF is influenced by "self-citations", editorial policies, and the numerator of the equation that is used to calculate it. The use of multiple complementary metrics and Median Metrics has been proposed to evaluate a more complete picture of a Journal's influence [14, 15].

Apart from these particular disadvantages, JIF and other JLM can vary widely between Medical, Surgical, and other scientific fields. Conventionally, Medical journals have demonstrated higher Citation scores and JLM than General Surgical Journals with the latter faring better than most commonly read Orthopaedic Journals. An ideal JLM should provide both qualitative and quantitative assessments, enabling an objective evaluation of the content of published literature and reflecting different aspects of research productivity and impact.

In this article, we explore the significance of traditionally used JLM such as the *h*-index of the analysed journals, total citations, total documents, citable documents, references and external citations per document associated with publications in premier Orthopaedic, Medicine, and Surgery Journals. The findings will contribute to the existing body of knowledge on research metrics and their relevance in publications in these Medical specialities. Understanding the JLM of journals in various disciplines will facilitate academicians, researchers, and clinicians to identify influential portals for publishing their work. This will facilitate EBM practice to improve the quality of patient care. Additionally, it may aid publishers and the Editorial Board to prioritize their journalistic targets. This study aims to compare the JLM of Medical journals and Surgical journals and to compare the journal's higher metrics between two time zones of pre and post-COVID-19 pandemic (2017–2019 vs. 2020–2022).

Materials and methods

We utilized the online listings provided by the Institute for Scientific Information (ISI) through SCImago to retrieve journals from 2017 to 2022 (scimagojr.com). The website allowed us to generate citation reports for each publication, which were analyzed using Microsoft Excel. We computed frequency data, medians, and interquartile ranges (IQRs) to determine the number of citations for each journal during the specified period.

Next, we merged the citation distribution data from Orthopaedic, surgery, and internal medicine journals. We identified the top ten and top 50 journals with the highest impact factors for separate analysis. To classify the 50 journals into their respective subspecialties, we examined each journal's website for information on their academic and clinical scope. Any uncertainties regarding the subspecialty classification were resolved through consensus with the senior author. Subsequently, we calculated the median and interquartile range (IQR) of the impact factor (IF) for each subspecialty grouping.

Results

The *h*-index of Surgical journals was comparable between the two periods ($U = 1{,}037{,}139.00$, $p = 0.193$). Total Cites (3 years) of Surgical journals were significantly higher in the period 2020–2022 ($U = 1{,}178{,}850.50$, $p = < 0.001$). Total documents (2017) of Surgical journals were statistically significantly higher in the period 2020–2022 ($U = 1{,}184{,}870.00$, $p = < 0.001$). Total documents (3 years) of Surgical journals was statistically significantly higher in the period 2020–2022 ($U = 1{,}120{,}432.50$, $p = 0.019$). Total references to Surgical journals were statistically significantly higher in the period 2020–2022 ($U = 1{,}193{,}599.500$, $p = < 0.001$). Citable documents (3 years) of Surgical journals were statistically significantly higher in the period 2020–2022 ($U = 1{,}124{,}491.00$, $p = 0.011$) (Table 1).

The *h*-index of Medical journals was comparable between the two periods ($U = 126{,}433.50$, $p = 0.950$). Total Cites (3 years) of Medical journals were significantly higher in the period 2020–2022 ($U = 143{,}799.00$, $p = < 0.001$). Total documents (2017) of Medical journals were statistically significantly higher in the period 2020–2022 ($U = 138{,}203.50$, $p = 0.009$). Total documents (3 years) of Medical journals were comparable between the two periods ($U = 134{,}949.50$, $p = 0.057$). Total references to Medical journals were statistically significantly higher in the period 2020–2022 ($U = 141{,}557.500$, $p = < 0.001$). Citable documents (3 years) of Medical journals were

Table 1 Distribution of Bibliometric Index of all Surgical Journals from the year 2017 to 2022 ($N=2922$)

Bibliometric index	Surgical ($n=1431$) (2017–2019) Median (IQR)	Surgical ($n=1491$) (2020–2022) Median (IQR)
h-index	29(11,62)	29(10,61)
Total cites (3 years)	194(30,628)	284(48,930)
Total documents. (2017)	77(39,152)	93(46,215)
Total documents. (3 years)	226(110,440)	236(119,508)
Total references	1839(860,3753)	2259(1089,5121)
Citable documents. (3 years)	200(97,389)	215(111,446)

Table 2 Distribution of Bibliometric Index of all Medical Journals from the year 2017 to 2022 ($N=1016$)

Bibliometric index	Medical ($n=432$) (2017–2019) Median (IQR)	Medical ($n=584$) (2020–2022) Median (IQR)
h-index	33(11.25,70.75)	32(13,63)
Total cites (3 years)	205(23.5,913.25)	316(71.25,1207.25)
Total documents. (2017)	67(31.25,156.5)	81(39,180.75)
Total documents. (3 years)	187(99,421.25)	212(116,466.25)
Total references	2105.5(824.5,5009.75)	2540(1147.5,5897)
Citable documents. (3 years)	163.5(80.75,346.75)	195(103,406.75)

statistically significantly higher in the period 2020–2022 ($U=137{,}377.50$, $p=0.015$) (Table 2).

h-index of Orthopaedic journals were comparable between the two periods ($U=390{,}469.00$, $p=0.822$). Total Cites (3 years) of Orthopaedic journals were significantly higher in the period 2020–2022 ($U=457{,}543.50$, $p=<0.001$). Total documents (2017) of Orthopaedic journals was statistically significantly higher in the period 2020–2022 ($U=451{,}400.50$, $p=<0.001$). Total documents (3 years) of Orthopaedic journals was statistically significantly higher in the period 2020–2022 ($U=442{,}276.50$, $p=<0.001$). Total references to Orthopaedic journals were statistically significantly higher in the period 2020–2022 ($U=451{,}802.50$, $p=<0.001$). Citable documents (3 years) of Orthopaedic journals were statistically significantly higher in the period 2020–2022 ($U=443{,}503.50$, $p=<0.001$) (Table 3).

The overall bibliometric analysis across all journals from 2017 to 2022 revealed the *h*-index of Medical journals was statistically significantly higher than the Surgical journals ($U=807{,}299$, $p=0.022$). Total Cites (3 years) of Medical journals and Surgical journals were comparable ($U=814{,}666.500$, $p=0.05$). The total number of documents (2017) in Surgical journals was statistically significantly higher than the Medical journals ($U=908{,}906.500$, $p=0.011$). Total documents (3 years) of Medical journals and Surgical journals were comparable ($U=891{,}329$, $p=0.09$). Total references of Medical journals and Surgical journals were comparable ($U=816{,}300.500$, $p=0.06$). Citable documents (3 years) of Surgical journals were statistically significantly higher than the Medical journals ($U=907{,}525$, $p=0.014$) (Table 4).

The overall bibliometric analysis across all journals from 2017 to 2022 revealed the *h*-index of Orthopaedic and Surgical journals were comparable ($U=1{,}741{,}218.00$, $p=0.43$). Total cites (3 years) of Orthopaedic and Surgical journals were comparable ($U=1{,}766{,}678$, $p=0.975$. The total number of documents (2017) in Surgical journals was statistically significantly higher than in the Orthopaedic journals ($U=1{,}980{,}803.00$, $p=<0.001$). The total documents (3 years) of Surgical journals was statistically significantly higher than the Orthopaedic journals ($U=2{,}025{,}105.00$, $p=<0.001$). Total references of Orthopaedic and Surgical journals were comparable ($U=1{,}745{,}504.00$, $p=0.511$). Citable documents (3 years) of Surgical journals were statistically significantly higher than the Orthopaedic journals ($U=1{,}986{,}371.00$, $p=<0.001$) (Table 5). The overall bibliometric analysis from 2017–2022 shows Medical journals have higher JLM than Surgical and Orthopaedic journals (Fig. 1).

The analysis of the top ten journals during the same period showed the *h*-index of Medical journals was

Table 3 Distribution of Bibliometric Index of all Orthopaedic Journals from the year 2017 to 2022 ($N=1773$)

Bibliometric index	Orthopaedic ($n=877$) (2017–2019) Median (IQR)	($n=896$) (2020–2022) Median (IQR)
h-index	30(14,55.5)	29.5(13,56)
Total cites (3 years)	173(39.5,469)	297.5(71.25,919.5)
Total documents. (2017)	58(31,116.5)	78(38,165.75)
Total documents. (3 years)	158(81,302.5)	190(105,393.75)
Total references	1783(881.5,3614.5)	2386.5(1130.5,5259.75)
Citable documents. (3 years)	145(73,283.5)	177(97,376)

Table 4 Distribution of Bibliometric Index of all Surgical and Medical Journals from the year 2017 to 2022

Bibliometric index	Surgical ($n=2922$) Median (IQR)	Medical ($n=1016$) Median (IQR)
h-index	29(11,61.25)	32.5(13,65)
Total cites (3 years)	229.5(38,780)	269.5(51.25,1055.75)
Total documents. (2017)	84.5(43,191)	76(36,170)
Total documents. (3 years)	231.5(115,475.5)	204(110.25,441)
Total references	2045.5(954,4427)	2347(991.25,5484)
Citable documents. (3 years)	210(104,416.25)	181(99,376.75)

Table 5 Distribution of Bibliometric Index of all Orthopaedic and Surgical Journals from the year 2017 to 2022

Bibliometric index	Surgical ($n=2922$) Median (IQR)	Orthopaedic ($n=1773$) Median (IQR)
h-index	29(11,61.25)	30(13,56)
Total cites (3 years)	229.5(38,780)	222(54,686.5)
Total documents. (2017)	84.5(43,191)	67(35,140)
Total documents. (3 years)	231.5(115,475.5)	175(91,354)
Total references	2045.5(954,4427)	2096(1016.5,4596)
Citable documents. (3 years)	210(104,416.25)	160(84.5,328)

Abbreviations: IQR = interquartile range

statistically significantly higher than the Surgical journals ($U=55.00$, $p=<0.001$). Total Cites (3 years) of Medical journals were statistically significantly higher than the Surgical journals ($U=8.000$, $p=0.001$). Total documents (2017) of Surgical and Medical journals were comparable ($U=32.00$, $p=0.190$). Total documents (3 years) of Medical and Surgical journals were comparable ($U=25.00$, $p=0.063$). Total references from Medical journals and Surgical journals were comparable ($U=42.00$, $p=0.57$). Citable documents (3 years) of Medical journals and Surgical journals were comparable ($U=58.00$, $p=0.58$) (Table 6).

The analysis of the top ten journals during the same period showed the *h*-index of Orthopaedic journals was statistically significantly higher than the Surgical journals ($U=87.500$, $p=0.003$). Total Cites (3 years) of Surgical journals was statistically significantly higher than the Orthopaedic journals ($U=78.500$, $p=0.03$). Total documents (2017) of Surgical journals and Orthopaedic journals were comparable ($U=62.50$, $p=0.35$). Total documents (3 years) of Orthopaedic journals and Surgical journals were comparable ($U=57.50$, $p=0.57$). Total references of Orthopaedic journals and Surgical journals were comparable ($U=44.50$, $p=0.68$). Citable documents (3 years) of Orthopaedic journals and Surgical journals were comparable ($U=29.50$, $p=0.12$) (Table 7). The bibliometric analysis of the top ten journals from 2017–2022 shows Medical journals have higher *h*-index, total cites (3 years), total documents (2017), and total documents (3 years) than the Surgical journals; and, Orthopaedic journals (Fig. 2).

The *h*-index of Medical journals and Surgical journals were comparable ($U=1075.00$, $p=0.22$). Total Cites (3 years) of Medical journals and Surgical journals were comparable ($U=1073.00$, $p=0.22$). Total documents (2017) of Surgical journals and Medical journals were comparable ($U=1526.00$, $p=0.06$). Total documents (3 years) of Medical journals and Surgical journals were comparable ($U=1491.50$, $p=0.09$). Total references of Medical journals and Surgical journals were comparable ($U=1229.00$, $p=0.88$). Citable documents (3 years) of Surgical journals were significantly higher than Medical Journals ($U=1602.50.00$, $p=0.02$) (Table 8).

h-index of Orthopaedic journals and Surgical journals were comparable ($U=1275.00$, $p=0.86$). Total Cites (3 years) of Orthopaedic journals and Surgical journals were comparable ($U=1227.00$, $p=0.87$). The total

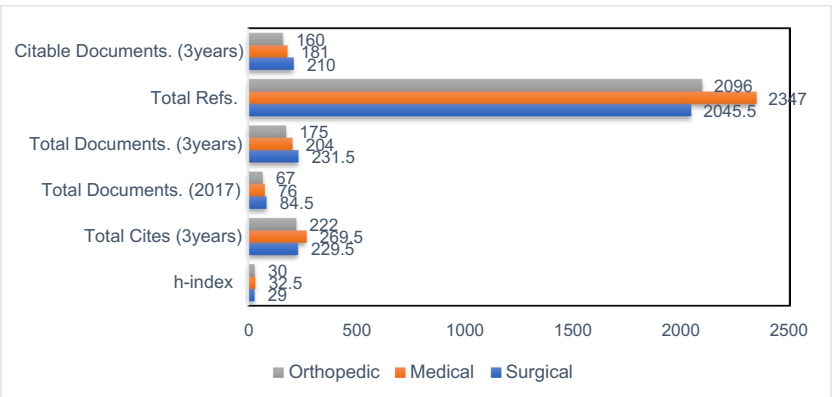


Fig. 1 Distribution of Bibliometric Index of all Orthopaedic, Medical and Surgical Journals from the year 2017 to 2022

Table 6 Distribution of Bibliometric Index of Top 10 Surgical and Medical journals

Bibliometric index	Surgical ($n=10$)		Medical ($n=10$)	
	Median	IQR	Median	IQR
h-index	48	274–322	391.50	380–403
Total cites (3 years)	6970.50	3884–12,046	12,142.50	8450–17988
Total documents. (2017)	478.00	371–947	637.50	354–953
Total documents. (3 years)	1411.00	1003–1699	1832.50	1269–2752
Total references	10,382.00	501–12223	10,220.50	8964–16,551
Citable documents. (3 years)	988.50	811–1117	925.00	740–1127

Table 7 Distribution of Bibliometric Index of top 10 Surgical and Orthopaedic journals

Bibliometric index	Surgical ($n=10$)		Orthopaedic ($n=10$)	
	Median	IQR	Median	IQR
f	48	274–322	270	266–274
Total Cites (3 years)	6970.50	3884–12,046	4747.00	3884–5758
Total Documents. (2017)	478.00	371–947	434.00	371–533
Total Documents. (3 years)	1411.00	1003–1699	1347.00	1003–1644
Total References	10,382.00	501–12223	10,646.50	14,684–8677.50
Citable Documents. (3 years)	988.50	811–1117	1168.50	811–1498

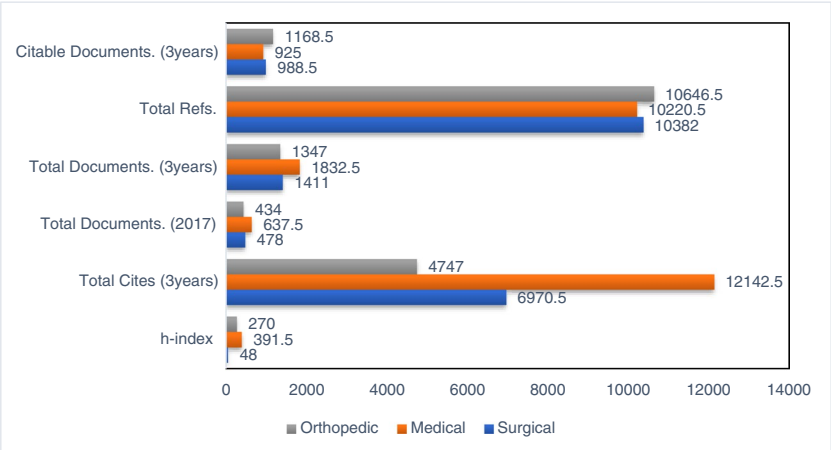


Fig. 2 Distribution of Bibliometric Index of top 10 Orthopaedic, Medical and Surgical Journals from year 2017 to 2022

Table 8 Distribution of Bibliometric Index of the top 50 Surgical and Medical journals

Bibliometric index	Surgical ($n=50$)		Medical ($n=50$)	
	Median	IQR	Median	IQR
h-index	216.5	202–322	258.5	152–403
Total cites (3 years)	4550.5	2522–12,046	6085	1859–17,988
Total documents. (2017)	491.5	196–1224	354.5	110–953
Total documents. (3 years)	1479.5	613–3624	1132	344–2752
Total references	9867	501–19601	10,067	2259–20,684
Citable Documents. (3 years)	988.5	482–2741	809.5	271–1264

number of documents (2017) in Surgical journals was statistically significantly higher than in Orthopaedic journals ($U=1684.50$, $p=0.003$). The total documents (3 years) of Surgical journals was statistically significantly higher than Orthopaedic journals ($U=1626.50$, $p=0.009$). Total references of Orthopaedic journals and Surgical journals were comparable ($U=1038.00$, $p=0.14$). Citable documents (3 years) of Orthopaedic journals and Surgical journals

were comparable ($U = 1289.50$, $p = 0.78$) (Table 9). The bibliometric analysis of the top 50 journals from 2017–2022 shows Medical journals have higher *h*-index and total cites (3 years) than Surgical and, Orthopaedic journals (Fig. 3).

Discussion

Bibliometric studies look into trends in publications on a particular topic. Bibliometric analysis can provide a powerful and reasonably accurate insight into the research activities on evaluated topics. They give an idea of where efforts and resources are focused in a particular speciality country or topic studied. It allows the identification of the number, citation counts and quality of publications from a specific country. They also offer information on the most explored topics in particular Universities, Institutes, and their publishing authors. These activities can be used by other researchers to focus their efforts in individual regions to plan resources and training. Multiple bibliometric studies have been reported from India in the recent past ranging from subspecialty-specific topics to COVID-19-related Orthopaedic publications [4, 16, 17]. However, none have analysed all the publications from India alone.

The SCImago Journal & Country Rank is an accessible portal that derives scientific indicators from the Scopus® database, facilitating the assessment and analysis of scientific fields [18]. With an extensive collection of over 34,100 journal titles from 5,000 international publishers and performance metrics from 239 countries, it enables the comparison and independent evaluation of journals and country rankings. The portal categorizes journals based on subject area, subject category, or country, and provides clickable image widgets for embedding significant journal metrics on websites. The platform takes its name from the SCImago Journal Rank (SJR) indicator, developed by SCImago using the Google PageRank™ algorithm. SCImago, a research group dedicated to information analysis and visualization, has also been created. The Shape of Science, a project that visually portrays the structure of science, the SIR (SCImago Institution Rankings) for ranking academic and research institutions based on research performance, innovation outputs, and societal impact, as well as the Atlas of Science, which aims to represent IberoAmerican Science Research through interactive maps [18].

Our study indicates several key findings related to the *h*-index, total cites, total documents, total references, and citable documents of Surgical journals. The *h*-index of Surgical, Medical and Orthopaedic journals was found to be comparable between the two periods under study. This suggests that the overall impact and influence of these journals, as measured by the *h*-index, did not show a significant change over time. However, it was interesting to note that the total number of citations received by Surgical journals, Medical

Table 9 Distribution of Bibliometric Index of top 50 Surgical and Orthopaedic journals

Bibliometric index	Surgical ($n = 50$)		Orthopaedics ($n = 50$)	
	Median	IQR	Median	IQR
h-index	216.5	202–322	226.5	189–274
Total cites (3 years)	4550.5	2522–12,046	4449	2683–8921
Total documents. (2017)	491.5	196–1224	391.5	147–576
Total documents. (3 years)	1479.5	613–3624	1148	428–1719
Total references	9867	501–19601	11,057.5	501–21979
Citable documents. (3 years)	988.5	482–2741	895.5	363–1627

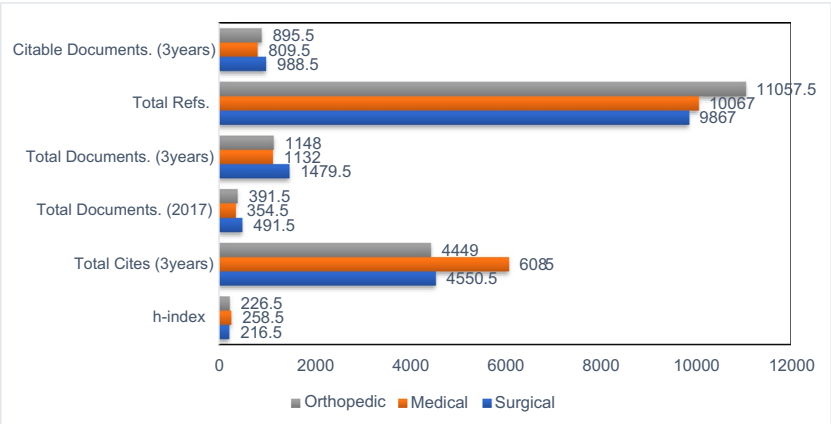


Fig. 3 Distribution of Bibliometric Index of top 50 Orthopaedic, Medical and Surgical Journals from the year 2017 to 2022

journals and Orthopaedic journals over three years was significantly higher in the period 2020–2022 compared to the previous period ($p < 0.001$). This indicates an increase in the visibility and recognition of these journals, as reflected by the higher citation count. The total number of documents published by Surgical journals, Medical journals and Orthopaedic journals was statistically significantly higher in the period 2020–2022 ($p < 0.001$). This suggests an increase in the volume of published content in these journals during the recent period.

The total number of documents published by Surgical journals and Orthopaedic journals over three years was statistically significantly higher in the period 2020–2022 ($p = 0.019$). This finding further supports the observation of an increased volume of published articles in the recent period. The total number of documents published by Medical journals over three years was found to be comparable between the two periods ($p = 0.057$). This suggests that there was no significant difference in the overall publication volume of Medical journals during the two studied periods. The total number of references cited in Surgical journals, Medical journals and Orthopaedic journals was statistically significantly higher in the period 2020–2022 ($p < 0.001$). This probably indicates that authors of these journal articles in the recent period are referencing a larger body of literature, possibly reflecting an expanded knowledge base and a higher degree of scholarship. The number of citable documents published by Surgical journals, Medical journals and Orthopaedic journals over three years was statistically significantly higher in the period 2020–2022 ($p = 0.011$). This finding supports the notion that there is an increase in the availability of quality research papers that can be cited as references by other researchers, due to the growth of digital technology and integration.

Gurbuz et al. [19] analyzed the research productivity originating in Turkey using articles published in the top 40 Orthopaedic journals according to the Journal Citation Reports for 2013. The Archives of Orthopaedic and Trauma Surgery was the most frequently published journal in this period with a rate of 16.3%. There was a total of 9,085 (8,765; excluding self-citations) citations of the 1,398 publications published in Turkey until December 2013, with a citation-to-work ratio of 7.47 and an *h*-index of 34. Hui et al. [20] analysed all Orthopaedics articles published in 61 journals from 2000 to 2011 which were retrieved from the Science Citation Index Expanded (SCIE) database. Despite a declining share of world literature, US-authored articles still ranked first. The US had the most experts and top-ranked institutions, as well as the most cited and top-ten impact factor articles. UK, Germany, and Japan were also in the top four for articles and citations. Germany, South Korea, and China increased their Orthopaedics article shares, especially China. China ranked fifth in 2011 after rising from 0.64 per cent in 2000 to 5.05 per cent. China trails in average citations per article, top research institutions, and prolific authors. Pittsburgh, Harvard, and the Hospital for Special Surgery had the most citations per article.

The COVID-19 pandemic has had a significant impact on the publications in Medical, Surgical, and Orthopaedic journals. With the outbreak of the pandemic, healthcare systems around the world faced an unprecedented burden, leading to a shift in research priorities and publication patterns. As the pandemic spread rapidly, there was an urgent need for information on the novel coronavirus, its clinical manifestations, and potential treatment options, which resulted in a surge of COVID-19-related publications. Medical journals witnessed a substantial increase in COVID-19-related research articles, with many publications focusing on epidemiological studies, clinical trials, and case reports related to the virus. Researchers and healthcare professionals rapidly shared their findings to address the immediate knowledge gaps and aid in the management of COVID-19 patients. Consequently, this influx of COVID-19 publications impacted the overall volume and scope of research published in Medical journals during the pandemic. Surgical and Orthopaedic journals were not exempt from this impact, as the pandemic led to changes in clinical practice and research priorities in these fields as well. Many elective surgeries were postponed or cancelled to prioritize COVID-19 patients and conserve Medical resources. As a result, research related to elective Surgical procedures and Orthopaedic interventions saw a decline in publication. In contrast, there was an increased interest in studies related to the management of COVID-19 patients with Surgical needs, such as those requiring emergency surgery or trauma care. The pandemic has highlighted the importance of digital integration, and flexible and adaptive publishing models, that can accommodate rapidly changing research priorities and address the information needs of the Medical community and the public during such global health crises.

We suggest that the ranking of the journals in Medicine should be done as per their specialities and the journals from each specialities should be compared with each other rather than across other specialities. This strategy will help resolve the dichotomy between the JLM of Medical and Surgical journals.

Limitations

This research only looked at one particular search engine. An investigation into several different search engines would provide a more comprehensive view of the publications. SCImago was selected because, in our opinion, it provides a listing of journals that are predominantly or almost entirely written by Indian authors. Some of the journals that are

frequently used by the authors are not listed on PubMed. Since bibliometric analysis is still in its formative stages, the findings of individual studies will naturally vary. As we went over in the previous section, inaccuracies that occurred while the citations were being registered might have caused some citations to be included or excluded. In the future, these errors should become less common as a result of increased standardisation in search engine and journal submissions.

Conclusion

There has been a steady increase in the number of publications from post COVID-19 era. Medical journals have higher journal metrics than Surgical journals and Orthopaedic journals Journal of Bone and Joint Surgery, Annals of Surgery and Diabetes Care were the most published journals in Orthopaedics, General Surgery and Medicine related topics respectively. The increased citation counts, publication volume, references, and citable documents in the recent period may indicate a positive trend in the visibility, scholarly output, and impact of these Surgical journals. These findings indicate a notable improvement in the citation impact, publication volume, scholarly references, and academic impact of Orthopaedic journals during the recent period.

Authors' contributions A) Conceptualization – Raju Vaishya
b) Data Collection – Raju Vaishya, Preethi Selvaraj
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