Correlation Between Cost of Publication and Journal Impact. Comprehensive Cross-sectional Study of Exclusively Open-Access Surgical Journals

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OBJECTIVES: As open-access journals have become increasingly common, it has provided more options for researchers to publish their work and improved access of information to the public. However, some open-access journals charge the authors processing fee on submission. In certain cases, this can be rather expensive. This study is the first study to specifically assess the cost of publishing in exclusively open-access, peer-reviewed surgical journals, and their correlation with journal impact, in the form of 6 bibliometrics.

DESIGN AND SETTING: This is a cross-sectional study. A list of journals is compiled using the SCImago Journal & Country Rank and Directory of Open Access Journals. 6 indices are measured − impact factor, SCOPUS *h*-index, SCImago journal rank indicator (SJR), Eigenfactor, Article Influence Score and Google h5 index. The cost of publication (in USD$) of a research article (maximum of 6 pages) is used as a baseline.

RESULTS: 89 research journals are included. The median cost of publication is USD$100 (range [0-2580]). 47% are free of charge. 13% can cost more than USD$2000 per article. SJR and Google h5 index appear to be the only indices that correlate linearly with the cost ($p = 0.015$ and 0.041, respectively), although the correlations are weak. 3 indices, namely impact factor, SJR and Article Influence Score appear to have very strong correlations with each other (Pearson coefficient > 0.90).

CONCLUSIONS: From this study, the cost of publishing in open-access journals bears little correlation to their impact; this poses a dilemma for researchers without significant funding. Therefore, authors and funders must consider cautiously when submitting to these journals. (J Surg Ed 76:107−119. Crown Copyright 2018 Published by Elsevier Inc. on behalf of Association of Program Directors in Surgery. All rights reserved.)

KEY WORDS: surgical research, open access, h-index, SCImago journal rank indicator, eigenfactor, journal impact

COMPETENCIES: Systems-Based Practice, Medical Knowledge

INTRODUCTION

Open-access (OA) has become an increasingly common policy in many medical journals.[1] This provides a more accessible means for researchers and the general public to consult published research. In the United Kingdom, the Finch Report[2] encouraged Government, Research Councils, Funding Councils and universities to make commitment to the development of OA for this reason. However, these often come with a price tag for the authors as publishers commonly ask for article processing charge (APC) in order to fund the journals.

In the UK, publication of articles in a peer-reviewed journals is an essential criterion for certification of completion of training in several surgical specialties.[3,4] However, as most trainee doctors are in full-time training, they often do not have the research funding that, for example, a post-graduate university student or a professional researcher may have available funds to pay for these publication costs.[5] Some research funding organizations such as the Wellcome Trust (United Kingdom),[6] provide specific funding streams for publications in OA journals. Open APC Foundation maintains a database that measures fees paid for open-access journal articles. This shows that large sums are

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being paid by universities and research institutions to these OA journals.[7] However, in a cash-tight publicly-funded health system, such as the National Health Service, it is difficult to find funding for such OA publications. Also if funding is provided for submissions to a paid journal, it is sensible to ensure that the journal has the impact worthy of its cost.

There are different routes to open access through a number of models e.g. "access without payment" to a version of a "publication through a repository" (often called "green open access"), or via the journal's own platform (often termed "gold open access").[8] In general, journals with an OA policy either publish free of charge and provide optional OA at an additional fee ("hybrid"), or they are exclusively open-access. In this study, we will investigate the costs of publication in exclusively OA surgical journals, and whether or not there is a correlation of cost with journal kudos, in terms of their Impact Factor (IF), and 5 freely available bibliometric indicators - *h*-index from Scopus, SCImago journal rank indicator (SJR), Eigenfactor, Article Influence Score (AIS) and Google h5 index.

H-INDEX

The *h*-index, short for the Hirsch index,[9] is a benchmark citation metrics used to measure the impact of publications by an author or journal, similar to the more commonly used IF (see below). It is defined as the value (*h*) if the journal or researcher has *h* publications that have each been cited at least *h* times. For example, an *h*-index of 5 means that a scientist or journal has published 5 papers that each have at least 5 citations.[10] Studies indicate that the *h* index is better than certain other indicators (e.g. total citation count, citations per paper, and total paper count) in quantifying scientific achievement relative to other benchmarks.[11] Also *h*-indices – unlike citations-per-paper measures such as the IF – are not based on average number of citations per article and hence are not skewed by a small number of individual, highly cited articles.[12]

We will study the *h*-index from 2 sources in our study – one be based on the SCOPUS database and one based on the Google Scholar database.[13,14] The former is based on 3-year data and the latter is based on 5-year data ("Google h5 index").

SCOPUS is a large Citation Index launched by Elsevier in 2004. It claims to be "the largest abstract and citation database of peer-reviewed literature" with "1.4 billion cited references dating back to 1970".[15] Google Scholar is a popular, freely available online database owned by the Google search engine.[16]

SCImago Journal Rank Indicator

The SCImago journal rank (SJR) indicator is another index based on the SCOPUS database.[17] It utilizes a similar method as the Eigenfactor (see below), where different weight is assigned to citations depending on the "prestige" of the citing journal without the influence of journal self-citations.[18] This is analogous to the PageRank algorithm used by the Google search engine when searching for the most relevant webpages. It has been widely used in studying publications in medical specialties such as gastroenterology, respiratory medicine, obstetrics and orthopaedics.[19-22] It is based on 3-year citation data.

Eigenfactor

The Eigenfactor is a recently developed index which harvests information from the *structure* of citation network. Its algorithm takes into account not only the number of citations but also where these citations are from.[23] Hence citation from a more prestigious journal has more weight than that from a less respected one. Eigenfactor is computed using citation data from the Clarivate Analytics Journal Citation Reports (JCRs), similar to the IF (see below). It is based on 5-year citation data. The score is additive: to find the Eigenfactor of a group of journals, one can simply sum the Eigenfactors of each journal in the group.[24] More details are available on the Eigenfactor website and in various publications.[23,25-31]

Article Influence Score

Article Influence Score (AIS) is a metric based on the Eigenfactor (equals to the Eigenfactor divided by the number of citable papers). It is also available on the JCRs, as well as on the Eigenfactor website free of charge.[31,32] It is supposed to reflect a journal's prestige by measuring the average influence per article using 5-year data. This measure is roughly analogous to the 5-Year Journal IF but with an algorithm based on the same principle as the Eigenfactor. It is normalized to one such that a score greater than 1.00 indicates that each article in the journal has above-average influence, and vice versa. For example, an article with an AIS of 3 means that its articles are on average 3 times as influential as the average article in the JCR database.[25]

Why Not Just the Impact Factor?

The IF is a measure of the average number of citations that a journal's articles receive over the 2 calendar years following publication.[33] For example, assuming in 2017 Journal Y has 101 citations in total and 23 citations were citations to articles published in 2015 and in 2016. During these 2 years, 17 articles were published. Then the IF would be 23/17 = 1.35. This is reasonably easy to

understand and has been used widely in the scientific community. It is compiled annually by Clarivate Analytics (previously known as Institute of Scientific Information, Thomson Reuters) in the JCRs.[34] However, it does have a number of drawbacks and controversies.

For example, the use of IF conceals the difference in article citation rates (articles in the most cited half of articles in a journal can be cited 10 times as often as the least cited half). Therefore a publication in a journal with a high IF does not necessarily have the impact that one would expect. Also, it was found that it strongly favors review articles, articles written in English and does not account for self-citations.[35] Moreover, there are criticisms that a large denominator (such as journals that publish a large amount per year) reduces the potential for a high IF. It also fails to account for how the distributed information is used by clinicians.[27] Moreover, the SCOPUS database has a wider database than that of the Clarivate Analytics.[18]

Moreover, at the time of writing, the *h*-indices, Eigenfactor, AIS and SJR indicators are freely available from the databases mentioned; whereas the Clarivate Analytics IF[34] does require a paying subscription to assess the figures.

Emerging Sources Citation Index database

In 2015, a new database was set up by the Clarivate Analytics to cover "high-quality, peer-reviewed publications of regional importance and in emerging scientific fields" that have "not yet demonstrated citation impact on an international audience".[36] It is known as the Emerging Sources Citation Index (ESCI). The journals on ESCI are not given an IF but citations from the ESCI journals are included in the citation counts for the JCRs, therefore contributing to the IFs of *other* journals.[37,38] There is evidence which shows it offers "positive effect on research assessment and it accelerates communication in the scientific community".[39] Therefore, it will be of interest to also investigate if this subset of journals has different bibliometric values compared to the rest, which will be included in the subanalysis of this study.

MATERIAL AND METHODS

The cost of publication, bibliometrics and specialty of OA-exclusive surgical journals are measured. The cost is directly recorded from the submission websites of the journals. The cost is converted into USD to the nearest USD$10 for those which use other currencies. The currency rates used for journals without USD pricing are listed in Appendix A.

An exhaustive search was performed to compile a list of all surgical OA journals using SCImago Journal & Country Rank (which contains an OA filter) and Directory of Open Access Journals (DOAJ). Data of *h*-indices and SJR indicators is recorded from the SCImago database (2016). The IF, AIS, and Eigenfactors values were directly retrieved from the Clarivate Analytics JCR (2016).

SCImago is a research group from the Consejo Superior de Investigaciones Científicas, University of Granada, Extremadura, Carlos III (Madrid) and Alcalá de Henares. The SCImago Journal & Country Rank is a publicly available portal that includes the journals and country scientific indicators developed from the information contained in the SCOPUS database.[17]

The DOAJ is a community-curated list of open access journals that was launched in 2003 at Lund University, Sweden and contains around 9000 peer-reviewed open access journals.[40]

Where there are different costs depending on the type of article, the cost of a standard (black and white) original research article with a maximum of 6 pages is included in this review. Journals which only accept case report submissions are analysed separately. Statistical analysis was performed with SPSS 23.0 for Mac (SPSS Inc., Chicago, Ill., USA). Bivariate Pearson Correlation coefficients and Spearman's ranking correlation coefficients were calculated. Statistical significance was pitched at $p < 0.05$.

Inclusion Criteria

Only English-language journals that are exclusively OA and peer-reviewed are included.

RESULTS

In overall, 100 journals are included in the study, of which 89 accept original research articles and 11 only accept case reports. The list is shown in Appendix B. We will focus on the former group for now.

The distribution of cost of OA Research journals is shown in Figure 1. The free journals constitute almost half of the population (47%). However, a significant number (13%) cost over USD$2000.

The Specialty spread, as shown in Figure 2, shows that a large proportion (24%) are "Generic", accepting manuscripts from almost all surgical specialties. Orthopaedic surgery journals came second (15%), followed by Plastic surgery and Neurosurgery (both 13%). A unique category that accepts articles on minimally invasive surgery (MIS) is also included.

Correlation with Cost

In the Research Journal category, 53 are available in SCOPUS database; whereas 22 are available on Clarivate Analytics JCR database. Figure 3(a)-(f) shows the distribution of indices. It is compared to the distribution of all

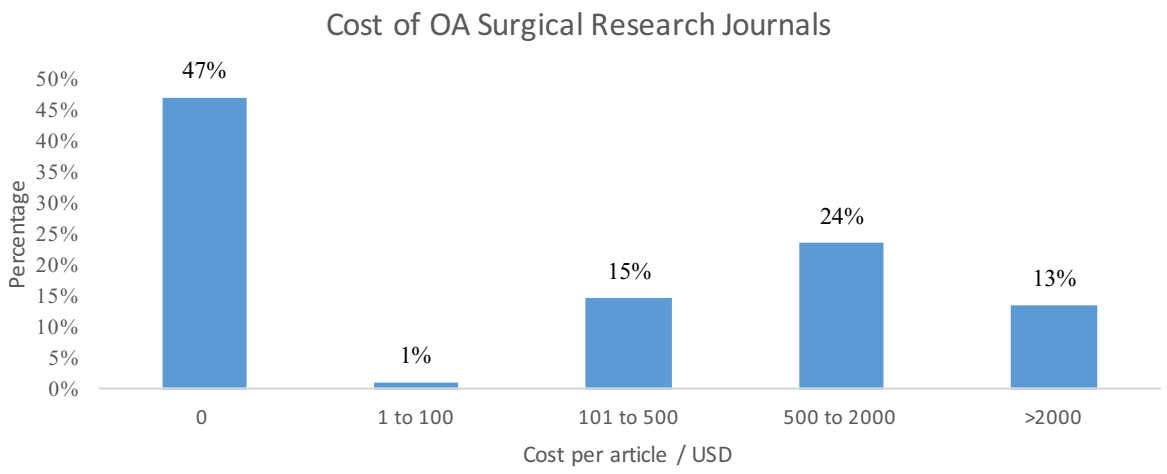

FIGURE 1. Article Processing Cost for exclusively OA Surgical Research Journals. N = 89.

surgical journals in their respective databases to provide a simplified comparison. As the Google Scholar database only provides a list of its top 20 surgical journals,[41] Figure 3(f) provides the statistics for all the OA journals in the study, the top 20 OA journals in the study and the top 20 surgical journals on the Google database for comparison.

Also, analysis was performed to measure the correlation between the impact of research journals, as measured by the metrics, with the APC (Table 1). A further sub-analysis is performed for charging journals only.

Correlation Among Different Indices

The correlation coefficients among different indices are shown in Table 2. Spearman's ranking tests were also performed (results not shown), which similarly show statistical significance among all the indices.

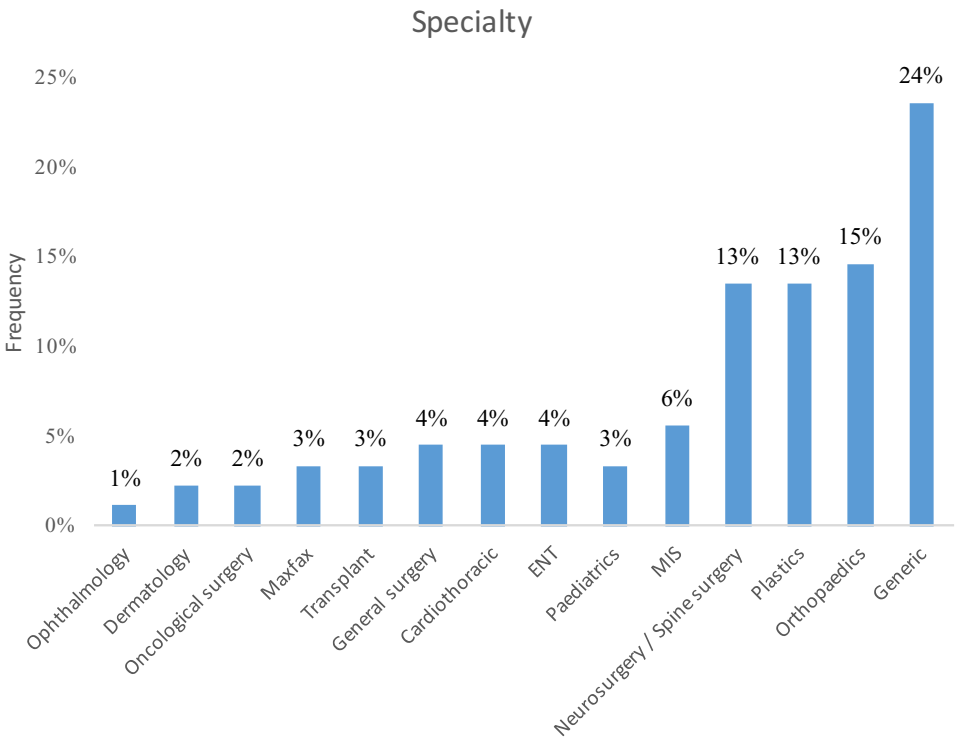

FIGURE 2. Specialty distribution of OA Research journals. MIS, minimally invasive surgery. ENT, ear nose and throat. Generic category accepts articles from different surgical specialties.

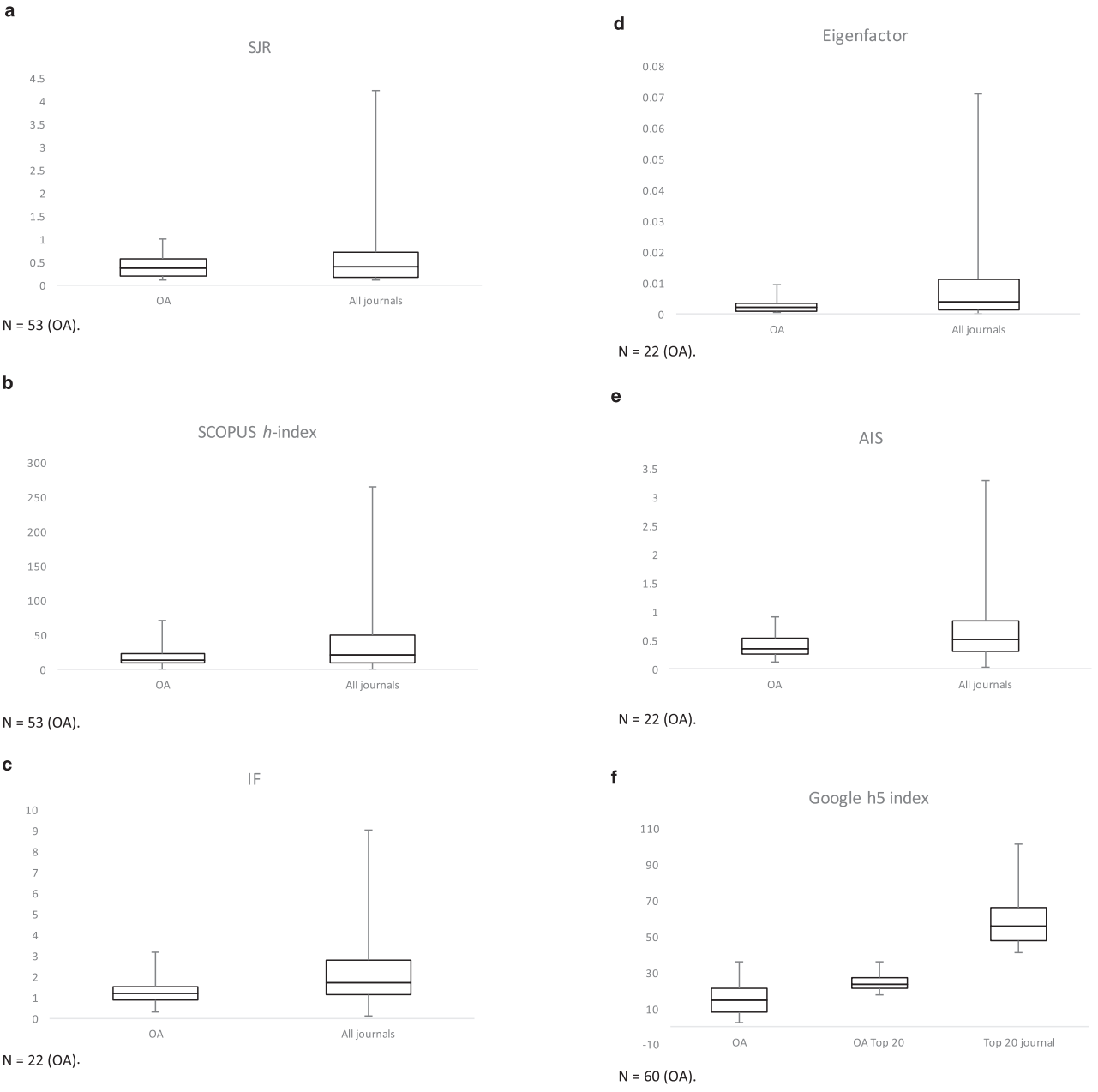

FIGURE 3. (a)-(f) Box and whisker plots of bibliometrics of OA journals and "all surgical journals", using range of values, median and interquartile ranges. Data of all surgical journals was derived from the SCOPUS database (N = 393) and JCRs (N = 197), except for data on the Google h5 index (see main text). The case report-exclusive category was separated out (see main text).

Non-ESCI vs. ESCI Research Journals

A comparison of values in bibliometrics and APC is shown in Figure 4. Note that ESCI journals do not have IFs, Eigenfactors or AIS for comparison.

Journals That Only Accept Case Report

Among the 11 journals that only accept case reports, only 3 have SJR and *h*-indices available and none of them are on JCRs and hence they do not have any information on IF, Eigenfactor and AIS. The distribution of cost is shown in Figure 5.

DISCUSSION

Spread of Metrics

Orthopaedics, Neurosurgery and Plastic Surgery are the most popular specialist journal categories. As well as the

TABLE 1. Correlation Analysis Between Metrics and APC

		SJR	SCOPUS *h* index	IF	Eigenfactor	AIS	Google h5 index
Cost / USD (all journals)	Pearson Correlation	0.332 (0.015)*	0.207 (0.138)	0.302 (0.172)	0.323 (0.143)	0.275 (0.241)	0.265 (0.041)*
	Spearman Correlation	0.276 (0.045)*	0.194 (0.164)	0.468 (0.028)*	0.393 (0.070)	0.448 (0.048)*	0.249 (0.055)
	N = 89	53	53	22	22	20	60
Cost / USD (charging journals only)	Pearson Correlation	0.408 (0.043)*	0.291 (0.158)	0.361 (0.249)	0.562 (0.057)	0.342 (0.277)	0.304 (0.091)
	Spearman Correlation	0.365 (0.072)	0.266 (0.199)	0.338 (0.283)	0.606 (0.037)*	0.394 (0.205)	0.274 (0.129)
	N = 47	25	25	12	12	12	32

The top row includes all OA research journals and the bottom row only analyses the charging journals. The brackets contain the p-values.
*Highlights correlation that is significant at the 0.05 level. *Sig.* denotes p-values.

possible increased amount of academic interest, this could be correlated to these jobs being reported as being some of the highest earners and hence they are able to afford publishing in charging journals.[42] However, the "Generic" category leads all of these presumably because they could appeal to a larger number of authors with different interests.

The interquartile ranges of bibliometrics in OA journals do overlap with those of all surgical journals (Fig. 3). However, the former seem to be on the lower end of the graph and the latter also tend to have much higher maximum value. This can be partly explained by that fact that OA journals tend to be newer and hence the amount of citation is expected to be less (especially in indices that utilise 5-year data). Perhaps with time, the OA journals would also eventually become more widely known and improve their citation metrics. However, mainstream journals such as Annals of Surgery, which has the highest number in all the metrics measured in this study, would still likely be in the lead for a period of time, due to its long-standing prestige.

It is difficult to draw conclusions from the Google h5 index data since only data from the top 20 surgical journals in the database are available for comparison. These have much higher values than the top 20 OA surgical journals in this study (Fig. 3(f)). This may again be explained by the reasons described above.

Cost-effective Options?

Correlation coefficients can be interpreted in the context of significance level but its magnitude also bears meaning to how strong the effect is. An example of interpretation is shown in Table 3.[43]

Therefore, despite SJR and Google h5 index have a statistically significant Pearson correlation coefficient with the APC, it is only of low positive and negligible correlations respectively. Similarly, with the Spearman ranking test, SJR, IF, and AIS all show statistical significance but they are of low magnitude as well. This leads to a conclusion that the cost of publishing in these journals bears little relation to their impact. This applies to all the OA surgical journals, as well as to the subgroup of fee-charging ones, as demonstrated by the sub-analysis in Table 1.

In addition, this study demonstrates that the cost of publishing in OA-exclusive surgical journals is highly variable, which is consistent with the analysis of open-access journals in the current literature.[44] In a substantial proportion (13%), it can be more than USD$2000.

There are still a large number of free, peer-reviewed journals that would accept submissions (OA or not). Nonetheless, as more and more journals, particularly new journals, are moving towards being OA exclusive, a potential financial barrier for researchers who do not

TABLE 2. Correlation Analysis Among Metrics

		SJR	SCOPUS h-Index	IF	Eigenfactor	AIS	Google h5 Index
SJR	Pearson Correlation	1	0.738*	0.921*	0.680*	0.946*	0.823*
	Sig.		0.000	0.000	0.001	0.000	0.000
	N	53	53	21	21	19	45
SCOPUS h-index	Pearson Correlation	0.738*	1	0.709*	0.837*	0.764*	0.783*
	Sig.	0.000		0.000	0.000	0.000	0.000
	N	53	53	21	21	19	45
IF	Pearson Correlation	0.921*	0.709*	1	0.679*	0.923*	0.701*
	Sig.	0.000	0.000		0.001	0.000	0.000
	N	21	21	22	22	20	21
Eigenfactor	Pearson Correlation	0.680*	0.837*	0.679*	1	0.690*	0.875*
	Sig.	0.001	0.000	0.001		0.001	0.000
	N	21	21	22	22	20	21
AIS	Pearson Correlation	0.946*	0.764*	0.923*	0.690*	1	0.780*
	Sig.	0.000	0.000	0.000	0.001		0.000
	N	19	19	20	20	20	19
Google h5 index	Pearson Correlation	0.823*	0.783*	0.701*	0.875*	0.780*	1
	Sig.	0.000	0.000	0.000	0.000	0.000	
	N	45	45	21	21	19	60

* Highlights correlation that is significant at the 0.05 level.
Sig. denotes p-values.

have a large amount of research funding is created. Therefore, it is important that authors (and potential funders) explore the cost of publication thoroughly before they submit their manuscript to prevent the dilemma between a heavy cost and re-submitting to a separate journal after acceptance. While the number of OA journals increases, competition from the market may drive down the publication price tag. The exact pricing of these OA journals has also been of controversy.[44]

Although many of the journals advocate discounts for authors based at low-income countries, this would not apply to doctors and researchers in more developed countries such as the UK, who may also not have access to funding for publication.

Note that the cost of publication is a complicated business and it is difficult to justify exact per-paper cost for each publisher, mainly because publications are often entangled with subscriptions and other activities,[1] and it is not in the remit of this article to justify the overall cost. However, it has been agreed that the overall systems and processes currently associated with the payment of APCs are sub-optimal, which present a significant barrier to the wider adoption of open-access publishing.[45]

Tools such as that developed by the Eigenfactor Project[25] are being developed to aid authors to identify the most "cost-effective" OA journals to submit articles, which is worth considering by potential authors. For example, they defined the *Eigenfactor index* as 1000 X Article Influence Score / publication fees giving another measure for cost-effectiveness. A survey in 2014 that look at the cost-effectiveness of all open journals listed on the JCRs show that the average article influence score of all OA journals (0.737) is not significantly different from that of non-OA journals (0.776). Also similar to our study, they found a bi-modal distribution of cost with a higher peak at $0 and another peak just below $2000. The authors concluded that it would be wiser for funders to support open access in ways that encourage price competition among open-access publishers.[46]

TABLE 3. A rough Guide to Interpretation of Correlation Coefficients

Correlation coefficient range	Interpretation
0.90-1.00	Very High Positive Correlation
0.70-0.90	High Positive Correlation
0.50-0.70	Moderate Positive Correlation
0.30-0.50	Low Positive Correlation
0.00-0.30	Negligible Correlation

Mirrored negative range would correspond to the negative correlation equivalent. Adopted from.[43]

Correlation of Indices

It is reassuring to see that all the indices have a statistically significant correlation with each other. This is particularly strong for SJR-IF, AIS-SJR, and AIS-IF correlations, which have Pearson coefficients > 0.90. This is similarly reflected in the Spearman ranking tests. It seems therefore there is no clear rationale to say one index is considerably more accurate than another in this

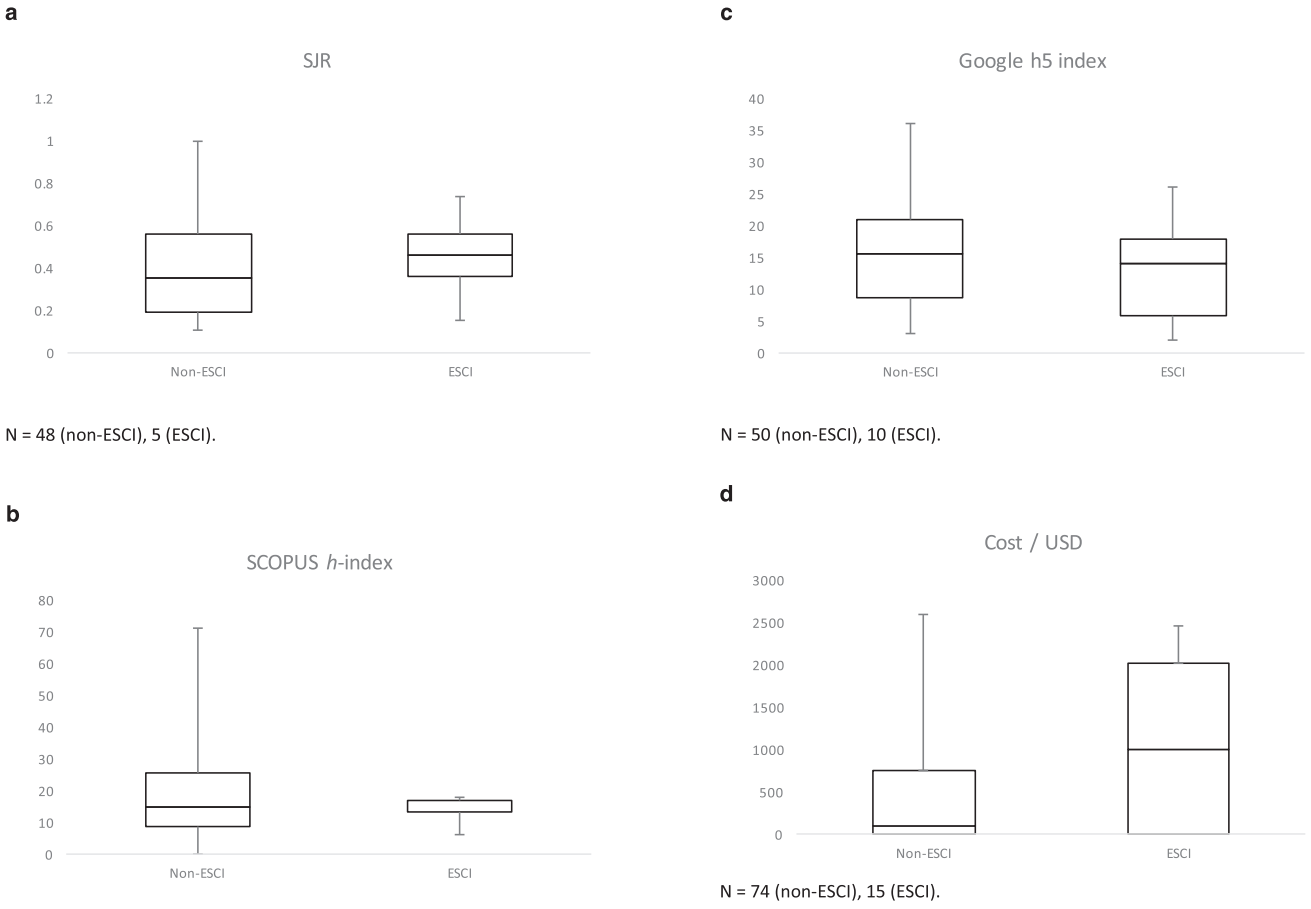

FIGURE 4. (a)-(d) Box and whisker plots for SJR, SCOPUS *h*-index, Google h5 index and APC between non-ESCI and ESCI research journals.

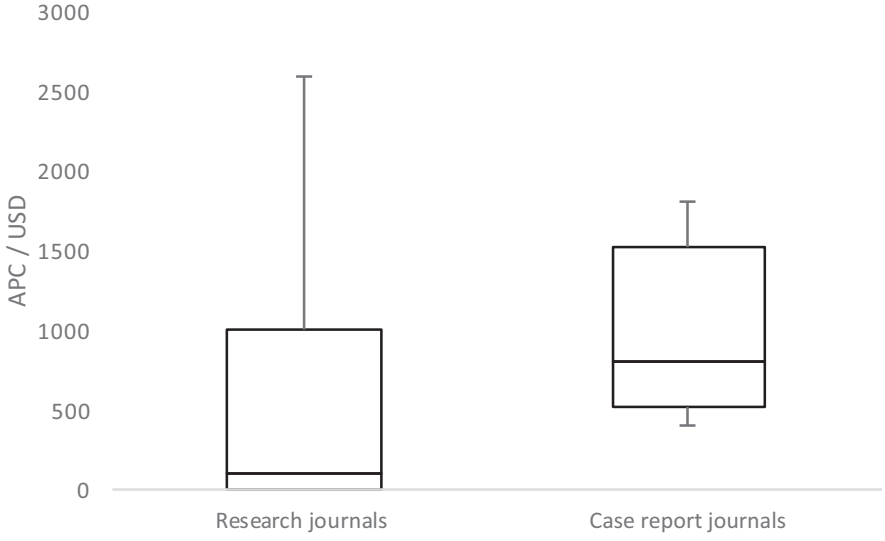

FIGURE 5. Box and whisker plot of APC of research journals and case report journals.

context. Also, given such correlation, one may perhaps be able to extrapolate the validity of SJR and *h*-indices to journals on SCOPUS and Google Scholar where the other indices are unavailable, when comparison is needed between journals, such as journals in the ESCI database.

As mentioned in the Introduction section, AIS can be roughly approximated as the 5-year IF. So it is not surprising that AIS and IF have good correlations. Since SJR is based on a different database from IF and AIS (SCOPUS vs Clarivate Analytics JCR), it is surprising that they have such strong correlation.

According to a study on IF, SJR, and Eigenfactor metrics in Paediatric Neurology, a high correlation was found between IF and AIS (correlation coefficient 0.850) but not in correlations between IF and the other indices. However, they have only identified 14 journals for the study.[26] In another study in Nuclear Medicine with 13 journals, they found a strong correlation between IF, SJR, and Eigenfactor.[28]

As there are more advances in network mathematics and computational resources, new indices are being developed to evaluate journal impact. We have used a few of the more recently invented indicators and we expect more will be developed to better inform authors and publishers of the impact of each journal.

It is worth noting that the Pearson coefficient is based on a linear correlation and the indices compared here are not designed to have a directly proportional relationship to a journal's impact/kudos, even if such index does exist. Hence the correlation analysis needs to take this into account. Spearman's ranking test was performed in addition to aid analysis.

ESCI Journals

The bibliometric values of ESCI journals have similar values to the non-ESCI journals as demonstrated by the overlap of box and whisker plots in Figure 4. However, this is limited by the small number of ESCI journals that have available bibliometric data (only 5 journals in the ESCI subgroup have data for SJR and SCOPUS *h*-index). However, for the cost subanalysis, it appears non-ESCI journals charge much less than the ESCI counterparts. Therefore, with caution, we can deduce that ESCI journals do not have an obviously superior impact compared to their non-ESCI counterparts but it costs more to publish in the former.

Case Report Only Journals

Although case reports are often regarded as less academically rigorous than research articles as demonstrated by the research evidence ladder,[47] looking at Figure 5, the interquartile range of research journals seem to be lower than that of case report only journals. This may be related to the fact that case reports tend to be more difficult to be published in conventional high-impact journals and hence this offers authors more incentives to publish in these fee-charging journals. However, the sample size is too small to draw any definitive conclusion.

Other Limitations

The main limitations of the study are the relatively small sample size and the 2 databases used to compile the list of journals may be incomplete. However, to our knowledge, they constitute the largest databases available for this purpose. Also as mentioned, there are caveats to the use of bibliometrics. Despite using 6 different indices, they are only a subset of measures of journal quality and undoubtedly any indicator as such is unlikely to completely capture every aspect of the impact of a journal and would induce some form of bias. For example, the *h*-index, despite being available free of charge and easy to calculate, fails to capture the complete distribution of citations, since journals with very different citation distributions can potentially have the same index.[10] Indeed, metrics such as the ones we measured here (and cost) are only certain aspects of the journals that should be considered by the authors. Most of these are aggregate measures of citation rate. They apply to the aggregate content of journals, not to the individual papers within them.[25] Other factors such as intended readership, download counts and relevance should also be taken into account seriously.

New metrics such as the Altmetrics[48] have been set up to complement traditional, citation-based metrics. They include a much wider range of sources such as "citations on Wikipedia and in public policy documents, discussions on research blogs, mainstream media coverage, bookmarks on reference managers like Mendeley, and mentions on social networks such as Twitter." In the modern day, social media has become increasing important in how we disseminate information and perhaps in the near future they will be more widely used in the academic community. This is an aspect that this study did not address.

This study includes a heterogeneous group of surgical specialties, which could also induce bias and may limit the generalization of the study's findings. The comparison of metrics with the whole surgical specialty is a very crude measure since the distribution of subspecialties is likely to be different to that of the OA surgical journals. They are only used here to give a rough idea to readers who do not have a lot of experience with metrics but comparison should be taken very cautiously.

This study only included journals that are surgically orientated, yet surgical research articles can certainly be published in other basic science journals such as *Public Library of Science*,[49] which are not included in this

study. We advocate further studies to include these journals as well as with other journal metrics.

CONCLUSIONS

In conclusion, this is the first comprehensive study of the cost and impact of exclusively open-access surgical journals. The processing cost of a research journal can range from zero to over USD$2000. However, this cost bears little correlation with the impact of the journal, as measured by the bibliometric indices we have studied. Both authors and funders must be careful when considering the cost implication of publishing in such journals. Also we found the 6 studied metrics appear to have significant correlations with each other. This study will aid potential authors to make informed decisions when deciding which journals to submit to.

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SUPPLEMENTARY INFORMATION

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jsurg.2018.06.029.

APPENDIX A.

Exchange rates used for journals that charge in other currencies.

1 Canadian dollar = 0.79 US dollar
1 Brazilian reals = 0.31 US dollar

It is worth to note that the vast majority of charging journals advertise the article processing charge in USD.

APPENDIX B.

List of journals that are included in the study, in alphabetical order.

Title
Acta Cirurgica Brasileira
Acta Orthopaedica et Traumatologica Turcica
Acta Oto-Laryngologica Case Reports
African Journal of Paediatric Surgery
Annals of Surgical Treatment and Research
Archives of Bone and Joint Surgery
Archives of Clinical and Experimental Surgery
Archives of Plastic Surgery
Arquivos brasileiros de cirurgia digestiva
Arthroplasty Today
Asian Journal of Surgery
Asian Spine Journal
BMC Surgery
Brazilian Journal of Cardiovascular Surgery
Brazilian Neurosurgery
Canadian Journal of Surgery
Case Reports in Surgery
Case Reports in Transplanation
Chinese Journal of Traumatology - English Edition
Chinese Neurosurgical Journal
CiOS Clinics in Orthopedic Surgery
Clinical and Experimental Otorhinolaryngology
Coluna/ Columna
Egyptian Journal of Ear, Nose, Throat and Allied Sciences
European Journal of Pediatric Surgery Reports
Frontiers in Surgery
Global Spine Journal
GMS German Plastic, Reconstructive and Aesthetic Surgery – Burn and Hand Surgery
GMS Interdisciplinary Plastic and Reconstructive Surgery DGPW
Hand and Microsurgery
HPB Surgery
Indian Journal of Burns
Indian Journal of Neurosurgery
Indian Journal of Plastic Surgery
Innovative Surgical Science
Interdisciplinary Neurosurgery: Advanced Techniques and Case Management
International Journal of Anatomy Radiology and Surgery
International Journal of Orthopaedics
International Journal of Shoulder Surgery
International Journal of Surgery Case Reports
International Journal of Surgery Open
International Journal of Surgical Oncology
Iranian Journal of Neurosurgery
Jornal Vascular Brasileiro
Journal of Cardiothoracic Surgery
Journal of Craniovertebral Junction and Spine
Journal of Cutaneous and Aesthetic Surgery
Journal of Endoscopic and Minimally Invasive Surgery in Newborn, Children and Adolescent
Journal of Experimental Orthopaedics
Journal of Indian Association of Pediatric Surgeons
Journal of Lasers in Medical Sciences
Journal of Minimal Access Surgery
Journal of Neurological Surgery Reports
Journal of Orthopaedic Surgery
Journal of Orthopaedic Surgery and Research
Journal of Orthopaedics and Traumatology
Journal of Otolaryngology - Head and Neck Surgery
Journal of Pediatric Surgery Case Reports
Journal of Surgical Case Reports
Journal of Surgical Dermatology
Journal of Surgical Technique and Case Report
Journal of the Egyptian Society of Cardio-Thoracic Surgery
Journal of the Society of Laparoendoscopic Surgeons
Journal of Transplantation
JPRAS Open
Kardiochirurgia i Torakochirurgia Polska
La Pediatria Medica e Chirurgica
Laryngoscope Investigative Otolaryngology
Maxillofacial Plastic and Reconstructive Surgery
Medicina Oral, Patologia Oral y Cirugia Bucal
Minimally Invasive Surgery
Neurologia Medico-Chirurgica
Neurosurgical Focus
Nigerian Journal of Surgery
Open Access Surgery
Oral and Maxillofacial Surgery Cases
Ortopedia, Travmatologia i Vosstanovitelnaa Hirurgia Detskogo Vozrasta
Patient Safety in Surgery
Perioperative Medicine
Plastic and Aesthetic Research
Plastic and Reconstructive Surgery, Global Open
Plastic Surgery International

Polski Przeglad Chirurgiczny
Revista Brasileira de Oftalmologia
Revista Brasileira de Ortopedia
Revista do Colegio Brasileiro de Cirurgioes
South African Journal of Surgery
Surgery Research and Practice
Surgical and Cosmetic Dermatology
Surgical Case Reports
Surgical Neurology International
The Surgery Journal
The Thoracic & Cardiovascular Surgeon Reports
Transplantation Direct
Transplantation Reports
Turkish Journal of Plastic Surgery
Turkish Nephrology, Dialysis and Transplantation Journal
Wideochirurgia I Inne Techniki Maloinwazyjne
World Journal of Emergency Surgery
World Journal of Surgical Oncology