

A comparative study on the turnaround time of article processing in dermatology journals: A need for improvement of this aspect in Indian journals

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Abstract

Introduction: Submission and publishing of research articles in scientific journals is a multistep process that should be efficient and swift.

Objective: To compare the editorial, peer review and publication time between Indian dermatology journals and international dermatology journals.

Methods: Three Indian (Indian Journal of Dermatology, Venereology and Leprology; Indian Journal of Dermatology and Indian Dermatology Online Journal) and three international (International Journal of Dermatology; the Australasian Journal of Dermatology and Dermatology [Karger]) dermatology journals were identified for this study. Information pertaining to time to acceptance, time to publication and the total time to publication were extracted for original articles, case reports and letters to the editor published in issues from January 2017 to December 2017.

Results: The mean total time to publication in the order for Indian Journal of Dermatology, Venereology and Leprology, Indian Dermatology Online Journal, Indian Journal of Dermatology, International Journal of Dermatology, Dermatology and Australasian Journal of Dermatology were 12.61, 12.50, 9.14, 7.92, 7.13 and 6.52 months respectively. While time to acceptance and time to publication were the longest in Indian Journal of Dermatology (7.01 months) and Indian Dermatology Online Journal (8.99 months), respectively, Indian Journal of Dermatology, Venereology and Leprology was found to have the maximum overall total time for publication i.e. 12.61 months. The differences among the journals were found to be significant for all three time measures ($P < 0.0001$, ANOVA). On comparison of Indian and international journals, all three time measures were found to be higher in Indian journals (5.81 vs 4.96 months, 6.75 vs 3.59 months and 11.53 vs 7.51 months, respectively) with the differences being significant ($P < 0.0001$, independent samples *t*-test).

Limitation: This data does not represent the performance status of rejected manuscripts, the information of which was not available in the public domain.

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Conclusion: An effective editorial screening, fast-tracked editorial and peer review process and regulation on turnover time of submissions by Indian dermatology journals are imperative in improving the impact of research publication.

Key words: Dermatology, editorial review, Indian, international, journals, peer review, time to acceptance, time to publication, total time to publication

Introduction

Scientific journals play a significant role in enlightening readers with the latest research. Publication of articles in journals involves the contribution of the authors, editors, reviewers as well as the publishing house. Manuscripts undergo a rigorous editorial and peer review process prior to publication; a process that is time-consuming and laborious. We undertook this study to analyze the turnaround time of processing articles of three Indian dermatology journals in comparison to three international dermatology journals.

Methods

For the current study, three Indian dermatology journals, namely, the Indian Journal of Dermatology, Venereology and Leprology (Indian J Dermatol Venereol Leprol), Indian Journal of Dermatology (Indian J Dermatol) and Indian Dermatology Online Journal (Indian Dermatol Online J) were selected. The information pertaining to the timeline of manuscript processing and publication are available in the public domain for the above three journals. Three international clinical dermatology journals with similar impact factor as Indian dermatology journals for which similar timeline information was available in public domain were identified, namely, Dermatology (Karger), Australasian Journal of Dermatology (Australas J Dermatol) and International Journal of Dermatology (Int J Dermatol).

Three categories of manuscripts were identified, namely, original articles, case reports and letters to the editor. Information pertaining to date of manuscript submission, manuscript acceptance, its online publication and inclusion in an issue were extracted from the online version of the articles published in issues from January 2017 to December 2017 independently by Manjunath S and Bhattacharjee R. When the exact date of publication was not available, the midday of the month was considered for calculations. Any differences were resolved by cross-checking the data. The web interface and submission system of all six journals were manually screened for details pertaining to impact factor (2017) of the journal.

We defined three entities for each of the 3 categories of the manuscript: time to acceptance, time to publication and the total time to publication. Time to acceptance was defined as the time taken from date of submission to date of final acceptance. This time period depicted the time incurred in editorial and peer review as well as time taken by the

authors in manuscript revision (s). Time to publication was defined as the time interval between the date of acceptance of a manuscript and date of its online publication. This time period depicts the time lag between acceptance of a fully peer-reviewed scientific article and its availability to the scientific community. Total time to publication is the summation of the above two time periods.

Statistical analysis

Statistical analysis was carried out using IBM statistical package for social sciences statistical version 23. Quantitative variables, time to acceptance and publication and total time to publication were estimated using measures of central location (mean and median) and measures of dispersion (standard deviation). Normality of data was checked by measures of skewness and Kolmogorov–Smirnov test of normality. For normally distributed data, means were compared using Student's *t*-test for two groups. Analysis of variance was used to compare the difference between means of the quantitative variable of different journals. All statistical tests were seen at the two-tailed level of significance ($P < 0.01$ and $P < 0.05$).

Results

The three Indian journals use Medknow publication, while Int J Dermatol and Australas J Dermatol use Wiley-Blackwell and Dermatology uses Karger publishers. The respective publishers also maintain the web interface and submission system of these journals. The three Indian journals and Int J Dermatol publish the three categories of manuscript selected for this study while Australas J Dermatol does not publish letters to editor and Dermatology (Karger) does not publish either case reports or letters to the editor.

Among the three categories of manuscripts studied, the time to acceptance and total time to publication for original articles were highest in Indian J Dermatol Venereol Leprol (7.17 months and 14.50 months, respectively), whereas time to publication was maximum for Indian Dermatol Online J (8.35 months). Among the five journals publishing case reports, those with the longest time to acceptance, publication and total time for publication were the Indian J Dermatol (9.04 months), Indian Dermatol Online J (8.88 months) and Indian J Dermatol Venereol Leprol (14.50 months), respectively. Among the four journals publishing letters to the editor, time to acceptance, publication and total time for publication were the highest for the Indian J Dermatol (6.49 months), Indian

Dermatol Online J (9.28 months) and Indian Dermatol Online J (12.51 months), respectively [Table 1]. Subgroup analysis by analysis of variance revealed the differences among the journals to be significant for all three time measures [Table 2]. All three parameters analyzed were observed to be significantly longer in Indian journals than their international counterparts [Table 3].

Discussion

The primary purpose of a scientific journal is to disseminate emerging knowledge and research to its target audience and at the same time give a platform to researchers to showcase their work to the scientific community. The latter intent is as important for the growth of the scientific community as a whole as much as the former, if not more. Hence, a journal ought to constantly strive to better its performance in terms of content and reach.

There was a significant difference in time to acceptance between Indian and international journals as a whole. Needless to say, this long interval translates to considerable loss of time for the authors, and hence, needs to be curtailed and the process of editorial and peer reviews expedited. There are several ways by which this could possibly be achieved. An editorial board with enough editors, depending on the number of submissions, is a prerequisite [Table 4]. The time allotted for an editorial review should be predefined and an editorial screening process should be instituted whereby manuscripts that are

not deemed fit for further consideration should be sifted out at the earliest.¹ A means to regulate and maintain manuscript turnover by the editors also ought to be in place so that their timely functioning is ensured.¹ Editorial staff and assistants, who are often absent in Indian journals are useful assets not only in the initial screening stage but also post acceptance of a manuscript.

Peer-review process and the time incurred in this is an important part of this phase. The reviewer pool should be expanded and reviewers chosen based on their body of work and fields of interest. This would also help in limiting the number of reviewers required for a manuscript and result in them not being inundated with too many manuscripts. Certain incentives for reviewers in the form of awarding continued medical education credit hours or at the very least, mentions or acknowledgements in issues would also go a long way in encouraging their efforts.²⁻⁵ Another important component of this time interval is the time incurred in revisions by authors. This, in turn, would depend on the number of revisions asked for by the reviewers as well as the time allotted for each revision. There ought to be a ceiling on the number of revisions that a manuscript should undergo before its final publication with all minor revisions clubbed together and the time allotted for revision should vary depending on its nature.

The time to publication depends on the number of issues published in a year and the number of preaccepted

Table 1: The performance statistics and mean number of articles published per issue under each category

Name of journals	Category of articles	Time to acceptance (months)	Time to publication (months)	Total time for publication (months)	Mean number of articles per issue
Indian J Dermatol Venereol Leprol	Original article	7.17	8.33	14.50	4.00
	Case report	7.00	8.50	14.50	1.00
	Letter to the editor	5.48	7.60	12.08	17.6
	Total	5.85	7.77	12.61	
Indian J Dermatol	Original article	6.06	3.03	8.10	5.16
	Case report	9.04	2.96	11.00	4.50
	Letter to the editor	6.49	3.29	8.78	8.16
	Total	7.01	3.13	9.14	
Indian Dermatol Online J	Original article	4.75	8.35	12.10	3.33
	Case report	5.12	8.88	12.71	5.66
	Letter to the editor	4.23	9.28	12.51	9.5
	Total	4.59	8.99	12.50	
Australas J Dermatol.	Original article	3.97	3.65	6.62	8.5
	Case report	4.22	3.20	6.42	12.5
	Total	4.09	3.43	6.52	
Int J Dermatol	Original article	6.70	3.85	9.37	7.58
	Case report	5.59	3.20	7.78	3.42
	Letter to the editor	4.16	3.82	6.98	11.08
	Total	5.25	3.73	7.92	
Dermatology (Karger)	Original article	4.89	3.24	7.13	13.75

Indian J Dermatol Venereol Leprol: Indian Journal of Dermatology, Venereology and Leprology, Indian J Dermatol: Indian Journal of Dermatology, Indian Dermatol Online J: Indian Dermatology Online Journal, Australas J Dermatol.: Australasian Journal of Dermatology, Int J Dermatol: International Journal of Dermatology

Table 2: Comparison of Time to acceptance, time to publication and total time to publication among all 6 journals

Time taken	Name of journals	Total number of articles	Mean time taken (months)	SD	CI	P
Time to acceptance	Australas J Dermatol.	84	4.12	1.717	3.75-4.49	0.000
	Dermatology	55	4.89	2.572	4.38-5.40	
	Indian Dermatol Online J	111	4.59	2.538	4.12-5.07	
	Indian J Dermatol	107	7.01	4.237	6.20-7.82	
	Indian J Dermatol Venereol Leprol	136	5.85	2.956	5.34-6.35	
	Int J Dermatol	260	5.25	3.156	4.87-5.64	
	Total	753	5.36	3.159		
Time to publication	Australas J Dermatol.	84	3.38	1.559	3.04-3.72	0.000
	Dermatology	55	3.24	0.769	2.94-3.54	
	Indian Dermatol Online J	111	8.99	2.484	8.52-9.46	
	Indian J Dermatol	107	3.13	1.649	2.81-3.45	
	Indian J Dermatol Venereol Leprol	136	7.77	3.243	7.22-8.32	
	Int J Dermatol	260	3.73	1.869	3.50-3.96	
	Total	753	5.08	3.162		
Total time to publication	Australas J Dermatol.	84	6.50	2.544	5.95-7.05	0.000
	Dermatology	55	7.13	2.708	6.62-7.64	
	Indian Dermatol Online J	111	12.50	2.693	11.99-13.00	
	Indian J Dermatol	107	9.14	4.314	8.31-9.97	
	Indian J Dermatol Venereol Leprol	136	12.61	3.832	11.96-13.26	
	Int J Dermatol	260	7.92	3.434	7.50-8.34	
	Total	753	9.40	4.121		

Indian J Dermatol Venereol Leprol: Indian Journal of Dermatology, Venereology and Leprology, Indian J Dermatol: Indian Journal of Dermatology, Indian Dermatol Online J: Indian Dermatology Online Journal, Australas J Dermatol.: Australasian Journal of Dermatology, Int J Dermatol: International Journal of Dermatology. CI: Confidence interval, SD: Standard deviation

Table 3: Comparison of the journal performance of Indian and international dermatology journals

Name of journals	Time to acceptance (months)	P (CI)	Time to publication (months)	P (CI)	Total time to publication (months)	P (CI)
Indian journals	5.81	0.000 (-1.289-0.391)	6.75	0.000 (-3.555--2.770)	11.53	0.000 (-4.528--3.495)
International journals	4.96		3.59		7.51	

CI: Confidence interval

Table 4: Editorial board strength of the studied journals

Journal	Editor in chief	Section/Deputy editor (s)	Assistant editor (s)	Total number of editors
Indian J Dermatol Venereol Leprol	1	18	10	29
Indian J Dermatol	1	6	0	7
Indian Dermatol Online J	1	13	4	18
Australas J Dermatol.	2	0	1	3
Int J Dermatol	1	11	1	13
Dermatology	1	18	0	19

Indian J Dermatol Venereol Leprol: Indian Journal of Dermatology, Venereology and Leprology, Indian J Dermatol: Indian Journal of Dermatology, Indian Dermatol Online J: Indian Dermatology Online Journal, Australas J Dermatol.: Australasian Journal of Dermatology, Int J Dermatol: International Journal of Dermatology

manuscripts in the inventory. All Indian journals included in our study are bimonthly journals publishing six issues in a year. This implies prolonged lag times for publication of accepted manuscripts given that there are fixed numbers of articles of each category that can be published in a particular issue. In addition, early online view publication can be a great aid in further reducing the publication time.³ This feature is available for all the three international journals included

in this study and only Indian J Dermatol Venereol Leprol, among the three Indian journals.

Author and reader feedback portals are utmost desirable for journals to get a constant evaluation of their performance. A simple survey at the end of the decision of their manuscript would enable journals to judge their performance as well as gauge author satisfaction.¹⁻³ Lastly, the journals should

self-assess their performance in the preceding year and make it available to the general readership.⁶ This would give the journals an opportunity to raise the bar higher for people on both the sides alike for the editors, reviewers, authors as well as the readers.

The primary limitation of our study is that our analysis would have included manuscripts that were submitted in 2016 which spilled over and were published in 2017. This could have confounded our results. Secondly, we could not get our hands on the information of the total number of submissions in each journal including manuscripts that were rejected.

Conclusion

The editorial board of Indian dermatology journals should work towards achieving an effective editorial screening, fast-tracking editorial and peer review processes and disseminating the peer-reviewed scientific material in a timely manner with minimal delay in publication. This is imperative in magnifying the productivity of the entire

process of publication of a manuscript, making it a joyful and fruitful endeavor for the journal staff as well as the authors.

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Conflicts of interest

There are no conflicts of interest.

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