Are researchers reading the journals they publish in? A case study of Icahn School of Medicine Scientists

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In order to gain an in-depth understanding of how scientists use journals (Maflahi & Thelwall, 2016), it is becoming important to also study in which journals they publish in and whether they correlate. In this study we sought out to find whether there are correlations between journals; usage and publications for Mount Sinai scientists. The results of such investigation can inform the licensing and renewals process of journals.

Mount Sinai is a hospital and research system encompassing the Icahn School of Medicine and the Graduate School of Biomedical Sciences. Mount Sinai's multidisciplinary Institutes have 34 academic departments focusing on collaborative research, clinical activities, and education. The Mount Sinai System includes more than 7,000 physicians and scientists and over 600 postdoctoral fellows. All of Mount Sinai research publications are associated with "The Icahn School of Medicine at Mount Sinai" as the affiliation.

Using Scopus, we searched for "The Icahn School of Medicine" in the affiliation search field. Overall, Scopus retrieved 3,052 documents assigned to "Icahn School of Medicine" scientists. We limited the search to articles only which resulted in 2,260 publications in 2015. -. To examine the most frequent journals in which Icahn School of Medicine scientists published in, we used the "analyze results" function in Scopus which allows downloading the list of top journals and subject areas in the set. Overall, Scopus retrieved 160 journals in which Icahn School of Medicine scientists published 1072 articles in 2015.

Using Serial Solutions, a platform which tracks usage per journal, we set out to retrieve usage counts per each of the 160 journals. However, Serial Solutions can only track "counter compliant" data (http://www.creatomatic.co.uk, n.d.). Therefore, we couldn't track usage for all journals. 2015 usage for 144 journals was tracked by Serial Solutions and included in our dataset. "Usage" in this study is referred to as the overall views/downloads per each journal since Serial Solutions does not differentiate between HTML views and PDF downloads.

For the analysis, we selected the journals that include at least 10 articles authored or coauthored by Icahn School of Medicine Scientists and journals that were used at least 10,000 times in 2015. For each of the journals in each of these categories we also collected the JIF value for 2015. Our datasets, therefore, comprised of 31 unique journals, 971 articles published by Icahn School of Medicine and 730,989 downloads/views of articles of these journals in 2015.

Our results show that when comparing the two sets of 'highest journals published in" and "highest journals used", we found only 7 titles that appear in both. As can be seen in Figure 1, highly used journals are not necessarily the most published in and vice versa.



Figure 1 Top-journals both in publications and in usage

There was no Spearman correlation between the number of articles published in a journal and its JIF. The lowest JIF of the papers with 10 or more articles is 3.234, and the highest 55.873, where the weighted average is 10.02. There was no significant Spearman correlation

between usage and JIFs either, but at least the r was somewhat meaningful (r=.401, p>.099). The data also shows that 37% of the articles in our dataset were published in the top journals by Mount Sinai researchers. Overall, the weighted average JIFs of the top-used journals is much higher on average (33.88) than the weighted average JIF of the top-journals published in (10.02).

In our case, we could not find correlations between the journals that are most used to the ones that are most published in. Out of the 31 unique titles only 7 could be found in both sets of highly used and highly published in journals. We could not find correlations neither between the numbers of articles published in specific journals and their JIF or a correlation between the highly used journals and their JIF. Therefore, it will be difficult to use this method as a collection development tool without further insight into publications and usage selections.

While most scientists aim to publish in high JIF journals, the motivation behind their reading selections and the relationship between the journals they read and the journals they publish in is still unclear. Further research should include a few interviews with top published scientists in order to better understand their reading selection and the relationship between that and their selection of journals they publish in.

References:

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