The Impact of the Impact Factor

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According to data released by the Journal Citation Reports (published by Thomson Reuters), the Journal’s impact factor for 2014 is 3.468 with a ranking of 7 out of 57 ophthalmology journals. This is a significant increase over the Journal’s 2013 impact factor of 2.781 and a ranking of 11 of 58 ophthalmology journals. The Journal’s trend over the past 5 years has been consistently positive in both rank and impact factor.

These numbers represent the highest impact factor and ranking ever attained by the Journal of Refractive Surgery, placing us solidly at the top of our subspecialty. This is quite an accomplishment and we are thankful to our Associate Editors, Editorial Board, reviewers, and authors for their support of our mission to bring the very best science in our field to our readership.

At this time it seems reasonable to assess the importance of the data: what is the relevance of the impact factor?

WHAT IS THE IMPACT FACTOR?
The impact factor assesses the average impact of articles published in a particular journal. To calculate this, the number of citations for articles published in the past 2 years is divided by the total number of citable articles published in that timeframe as determined by the Journal Citation Reports. The impact factor is therefore a snapshot of the relative number of citations for a journal. This snapshot is limited, with even the most important articles falling off the list in 2 years even though their impact continues.

ALL JOURNALS ARE NOT CREATED EQUAL (BY DESIGN)
In looking at the most recent top ophthalmic journals based on impact factor, it is clear that not all fulfill the same mission, yet all journals are measured with the same metric. Some journals publish no original research, only review articles, which tend to be highly cited. Some journals have ceased to publish case reports, which tend to be infrequently cited. At the Journal of Refractive Surgery we have opted not to do this, given the potential “impact” a single case report can have on our field. A case in point is the case report by Seiler in 1998 where he described a new entity, ectasia after LASIK; this report has now been cited more than 350 times in the peer-reviewed literature.

Because the impact factor is based on total articles published, higher volume journals may see a dilution of their impact factor. One notable example is Investigative Ophthalmology and Visual Science, which has seen a decrease in impact factor and rank even though their articles were cited more than 44,000 times in the 2014 rank cycle, nearly twice as often as any other ophthalmic journal.

If these facts reduce the apparent relevance of the impact factor, does it have real significance beyond its self-defined role as a rank tool?

THE IMPACT FACTOR AS A QUALITY METRIC
In today’s online world, when many journals available have an immediate presence in search engines and availability, it can be challenging to determine the relative rigor of one article relative to another. Some online-only open access journals seem reputable and likely work in similar fashion to traditional print journals, with respected editorial boards and structured peer review processes. However, some are clearly little more than money-making enterprises, with predatory styles that require author payment for publication and offer little in regard to peer review or the guarantee of real science. When trying to decipher the relative value of the scientific message contained within an article, there is no substitute for critical, thorough review by the reader; however, in some instances the impact factor of the journal in question may provide assistance.
OPHTHALMIC MIMICRY

Mimicry is defined as “a superficial resemblance of one organism to another or to natural objects among which it lives that secures it a selective advantage.”

This concept can apply to medical journals, when the “mimic” journal attempts to gain advantage by looking and sounding like a high impact, peer-reviewed journal. A variety of “mimicry” journals have come into being, with names deceptively similar to our most prestigious journals, differentiated only by a carefully placed buzzword or two, such as the “Journal of...” or “Clinical...,” or other minor differentiators. These mimic journals may appear remarkably similar in many regards, but the impact factor can provide guidance on their comparative value.

The impact factor can also assist in helping authors decide where to submit papers so they will have the highest likelihood of becoming a part of the scientific conversation surrounding their research topic, and to preferentially select the more robust peer-reviewed sources for their best work. When authors choose poorly, they risk having their work discounted, even if it may have substance.

ASSESSING THE IMPACT FACTOR

The impact factor remains a valuable if imperfect metric, and we at the Journal of Refractive Surgery are proud to have seen our steady increase over the years! We will continue our mission to bring the best research in our subspecialty to our readership, and we are hopeful that our impact factor continues to reflect this commitment.

REFERENCES