**Letter to the Editor**

**Why are most of the neurosurgical papers not getting cited? With ideas to improve the situation**

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Respected Sir,

We want to highlight the matter of neurosurgical citations especially from the articles from low-mid income countries. There has been some really concern among the researchers that why their work has not been cited, which portends a sense of dissatisfaction and inadequacy leading to discouragement in producing more work on the part of the authors. The impact of a published paper in the relevant scientific community it is being gauged by the number of citations it receives. While every discipline of medicine is suffering through the frustration of not being lauded through citations, the neurosurgeons who are also in a relatively smaller number and trying their best to showcase their work, are feeling the impact more negatively. We need to investigate the causes behind this trend of getting less citation to address this issue. If left unnoticed, we might end up losing many emerging talented researchers.

Ponce et al. studied the highly cited neurosurgical articles. They reviewed 100 most cited manuscripts in neurosurgical journals. They noticed that these 100 scripts appeared only in three of 13 journals dedicated to neurosurgery. About 79% were found in Journal of Neurosurgery, 11% in the Journal of Neurology, Neurosurgery and Psychiatry, and the remaining 10% were from Neurosurgery. The individual disciplines represented in these citations were cerebrovascular diseases leading (43 articles), trauma (27 articles), stereotactic, and functional neurosurgery and neurooncology. They further noticed that “trials” were the most preferred for citation.[1]

One reason of lack of research citation maybe secondary to a relative lack of interest in newer research work with subsequently less utilization of literature review. Many students and doctors perform research work only to meet requirements for promotion and not because of shear interest in genuine research. They usually get inspiration from the journals available in the hospital libraries. Most of the time only the top ten neurosurgical journals make their way to the public hospital library shelves. Hence, only these journals become the mere citation source. Without a deep interest of amplifying a novel topic, authors avoid putting effort in searching for articles being published in comparatively lower impact journals.

There are certain issues that are not much intentional and we need to devise ways of properly managing the way of showing off work and to bring the important points into attention. Most authors prefer to cite references from the top ten international neurosurgery journals only but, on the other hand, not many authors get the chance of getting published in the same top ten journals.
Such papers, no matter how high quality they may have, end up into a low impact journal and thus being under-rated.

With a lack of foreign qualification and showcasing of work at international forums, many researchers fail to gain the trust of the editors and reviewers of journals. The overwhelmed journals consider such researches to be of poor quality knowing the lack of resources and training level and the writing gets rejected. The same applies for citations. Many authors suspect the authenticity of the work published in low impact journals and do not like to cite them. Many authors feel that citing work of famous authors will add more authenticity in their work which will be able to gain fame and appreciation.

In a short survey conducted among 40 neurosurgeons, 70% showed that they would cite JNS and neurosurgery articles. About 75% indicated that this preference of selecting from these journals is because they think they are authentic and have gone through the scrutiny from the editors and peer reviewers. About 80% thought that citing from these papers will increase the impact of their own writing. About 65% told that they knew the names of only five journals so they search the archives of only those journals. To answer a question of whether they would choose to cite from a low impact journal, only 35% agreed to it. About 70% believed that it may not add weight to their paper if they cite some less known resources. 40% believed that they would select from a low impact journal only if the author of the writing is well known neurosurgeon. About 65% agreed they would select from a low impact journal if the citation is from a conference proceeding. We strongly believe that the missing link is “trust in the author’s own genuinity.”

We have noticed that most of the time, much of the research work being done today is on some very cliched topics. At times, the same research team working on a certain topic keeps writing on various aspects of the same topic they have been working for years. This leads to the focus being shifted on just a few topics and repetition of citations, especially from the same team. These teams usually have preferences to publish in just one specific journal. We here want to suggest that these teams should consider adding new researchers and extending the members. These teams should also try to search and pick up newer references from work across the globe.

It is admirable that many journals require specific time periods only from which you need to pick up references. This leads to thorough search which may actually need to citation from newer researchers and even from journals with low impact.

We suggest need to discuss this important topic that is the keystones of research motivation and mobilization of data from all around the world that may help extend the horizon research in neurosurgery and to pave way for innovations and novel therapies.

We appreciate the online journal club meetings for sharing the work. We suggest such meetings should be arranged for all journals and authors should be invited to listen and pick the lesser known literature for citation. We really appreciate the last 5 years only obligation only for citations that ultimately promotes selection from all journals including the lesser impact ones.

We want to suggest creation of mirror journals by the leading neurosurgery journals that are affiliated with them as well. It will help every author to get affiliated with the leading journals that would enhance the visibility of their work. There should be web-based meetings that would discuss preprints as well and people should be allowed to discuss modifications of such writings.

It should be made sure that in citations, one single journal is not being repeated several times. It should be promoted that lesser known journals be cited in the research. The top ten neurosurgical journals should promote citations from lesser impact journals. We believe there should be blogging by the leading journals where they would invite authors and other journals to share their literature. This will introduce the literature to everyone who is in writing and the authors will be easily cited.

There should be efficient use of social media and sites like ResearchGate. We suggest creation of “helping groups” on social media and research sites where interested authors ask the other authors to share their work on their proposed title and all authors who have done work on the relevant topic. This group can be helpful for both sides. It will help the author in writing down the paper as the literature will be available to them without an extra effort, while, on the other hand, the lesser known authors will be able to get their papers cited easily as well. Hence, it will be a step promoting mutual benefit.

Declaration of patient consent
Patient’s consent not required as there are no patients in this study.

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Conflicts of interest
There are no conflicts of interest.

REFERENCES
1. Ponce FA, Lozano AM. Highly cited works in neurosurgery. Part I: The 100 top-cited papers in neurosurgical journals. J Neurosurg 2010;112:223-32.

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Commentary

Response to the Letter to the Editor

Dear Drs. Al-Salihi and Maria,

I read your “Letter to the Editor” with great interest as it reflects the beliefs of many neurosurgeons and scientists. My travels to countries around the world confirm your impressions.

We have recently published a paper in SNI entitled “Comparative metrics of neurosurgical scientific journals: What do they mean to readers?” (1) In that paper we discuss the history of citation indices which were used at a time when there was no Internet. These indices were used as the measure of the value of a scientific publication. The scientific indices do not reflect the number of people who read a paper but only those who cite it for publication. These indices were adopted by academia to evaluate papers as a measure of scientific activity, for granting degrees, and for academic promotions.

Our paper compares the 9 highest rated journals of neurosurgery by known metrics and also by Readers/Users of each journal, a new metric from internet tracking, not available for paper journals. For example, it is interesting to see in Table 1 (Included below) that SNI is the third most widely read journal in Neurosurgery behind the Journal of Neurosurgery and Neurosurgery. The other journals have varying index factors none of which measure the number of people who read the articles. The Internet now allows us to evaluate direct readership of papers and other metrics all of which are becoming noticed in publishing.

Who is reading journal articles and how do we learn? No one knows the answers to those questions. It is likely that people all over the world in varying economic, cultural, and environmental circumstances, with different levels of education, all have varying needs in education. Most of the readers are in the practice of neurosurgery and only small percentage are in academia. Scientific journals may not satisfy the educational needs for all these readers. Yet, the standard has been set by academia to use citation indices to evaluate the journals and its papers. If a scientific paper is read by thousands of people or even hundreds but not used for academic purposes, does that make the work less valuable? Obviously the answer is No.

When Surgical Neurology International (SNI), an internet journal of neurosurgery and neuroscience, was founded in 2010, its principle was to recognize that there are bright people all over the world with great ideas and observations. SNI wants to publish those ideas. In all my 26 years as Editor

Table 1: Neurosurgery journals metrics comparisons as of April 19, 2020.

| Journal                              | Organization      | Readers (users)/mo. Rank | Readers (users) mo. | Google scholar h5 index rank | Google scholar h5 index | Google Scholar h5 median rank | Google Scholar h5 median | Impact factor | Impact factor SJR rank | SJR rank 2018 | SJR rank | Open access: free or. costs | Article Space. Limited. Unlimited |
|--------------------------------------|-------------------|--------------------------|---------------------|-----------------------------|------------------------|-------------------------------|--------------------------|---------------|------------------------|----------------|----------|-----------------------------|-----------------------------|
| Journal of Neurosurgery              | AANS              | 1                        | 111,885             | 64                          | 81                     | 2                             | 4.13                     | 1.693         | Costs                  | Limited        |          |                            |                            |
| Neurosurgery                         | CNS               | 2                        | 86,353              | 55                          | 68                     | 1                             | 4.605                    | 3.129         | Costs                  | Limited        |          |                            |                            |
| Surgical Neurology International     | Charitable Foundation | 3                       | 39,233              | 27                          | 43                     | 8                             | 0.405                    | Free          | Unlimited              |                |          |                            |                            |
| Acta Neurochirurgica                 | EANS              | 4                        | 27,831              | 35                          | 46                     | 6                             | 1.834                    | 0.781         | Costs                  | Limited        |          |                            |                            |
| Operative Neurosurgery               | CNS               | 5                        | 27,792              | 27                          | 42                     | 8                             | 1.47                     | 0.796         | Costs                  | Limited        |          |                            |                            |
| World Neurosurgery                   | 6                 | 21,494                   | 4                    | 47                          | 60                     | 7                             | 1.723                    | 0.631         | Supports Open Access    | Unlimited      |          |                            |                            |
| Journal of Neurosurgery: Spine       | AANS              | 7                        | 20,791              | 48                          | 61                     | 3                             | 2.998                    | 1.363         | Costs                  | Limited        |          |                            |                            |
| Neurosurgical Focus                  | AANS              | 8                        | 19,315              | 45                          | 61                     | 4                             | 2.891                    | 1.006         | Free                   | Limited        |          |                            |                            |
| Journal of Neurosurgery: Pediatrics  | AANS              | 9                        | 12,986              | 35                          | 45                     | 5                             | 2.17                     | 0.959         | Costs                  | Limited        |          |                            |                            |
of Surgical Neurology and then SNI, we have been open to papers from all over the world. Neither the country of origin or any other cultural characteristic is used to evaluate a paper. Each paper is evaluated individually and blindly regarding its origin. The wide scope of the papers published in SNI from countries all over the world attests to our belief and practice. Some journals are restrictive in selecting papers, and others do reject papers from low to middle income countries, or papers that are not written according to standards they set initially. That is obvious by comparing SNI's papers published to those of other journals. In SNI, our editors help the authors revise the paper into publishable form, if necessary, so their ideas can be read and understood by all. SNI is read in 237 countries and territories around the world. All the contents of SNI are FREE to anyone in the world to read or to download. There are small authors’ fees which have not changed in 10 years. If the author cannot afford those costs, we will publish the paper without charge when a request is received. That support comes from a charitable foundation that owns SNI. The goal of that Foundation is to provide FREE education to everyone in the world.

The article you cite by Ponce et al. was written in 2010 before Internet journals existed and when only a few neurosurgical journals were published. Now, there are more than 30 journals devoted to neurosurgery. So the Ponce et al. data is not accurate now.

Your observations of the biases of people in using the citation indices to evaluate scientific work are true, but times are changing. SNI has a policy of providing information people want, such as scientific papers, videos, e-books, etc., for years. The index factors are not meaningful to us for the reasons I stated. They do not measure what the readers need from my discussions with people like you around the world. Our readership is higher than most of the other journals published. Why? Because people want to exchange information freely and without cost. There are many ways to learn. Zoom education is adding another option for those who want information. We do not limit the paper references to a selected period of time for the paper published. The older papers contain jewels of knowledge and observations that are fundamental to understanding the challenges we face clinically. Hopefully, at your institutions, you can have access to all those journals on the Internet.

You can access SNI on the Internet or in your home, office, or hospital library Free. You have access to all the issues of SNI for the last 10 years and can search our data base of papers, videos, and other educational content as your library of information. Other educational choices in publishing are emerging. Academia, scientific organizations, and journals are slowly recognizing these facts. It is obvious that most people read journals for practical information that they can use and not necessarily for use in a scientific publication. If you have a good idea or observation and tell your friends, but do not publish a paper on the subject, how do we measure the value of that idea or observation? We do not know. No one knows. Does that make the idea invalid? No. SNI wants to publish those ideas.

Your suggestions at the end of your letter on how to improve the submission of papers and to recognize new ideas are excellent. We will implement them in our coming educational programs. We cannot fix the biases of the academic community about which you write except to provide an answer for you through SNI. Please, tell all of your friends and pass this information on to them. The web address for SNI is www.sni.global or search, “Surgical Neurology International”.

Read our paper on the Metrics of Neurosurgical Journals cited below. Submit your work to those journals that accept your ideas without bias. Inform your evaluating committees of our paper on the meaning of Metrics of Neurosurgical Journals. SNI can provide you even more metrics of how many times your paper is read and downloaded that provide a factual value to those sources judging you. That metric appears daily on each paper we publish. That is information that you can use to indicate that others in the world value what you write and say.

Thank you for sending your comments. We hope this answer will help you and others who agree with your thoughts.

Jim Ausman
Emeritus Editor in Chief
Surgical Neurology International

1. Ausman J, Epstein N, West JL. Comparative metrics of neurosurgical scientific journals: What do they mean to readers? Surg Neurol Int 2020;11:169.
Authors Reply

Respected Prof. Ausman

First of all, thank you so much for your kind attention and reply. We were thrilled to hear back from you and to us it was the echo of our voice after it got heard! So, thank you so much. We can understand your busy schedule, and we are grateful to you for having such a warm attitude towards the concerns of authors.

Sir, we are short of words to express our heartfelt gratitude towards SNI. It was the trust we have in you that made us choose your journal to share what concerns us the most in academia. SNI is the journal being used from the medical school years and gets incorporated as nicely as a piece of DNA in a doctor’s mental genome! The quality of content is high and everything is free. The topics are versatile and negates monotony. As you have mentioned, it is because SNI is open to all publications and with the help of editor and reviewers, a Pygmalion is being chiseled from a piece of paper. We are so grateful to you sir.

Sir you have nicely discussed our concern about citation. This is extremely true; the number of academic neurosurgeons is extremely scarce. Those who need to publish any paper intend to do it only for promotion purpose. Due to lack of experience, they usually involve the person who is engaged with writing as you can find the “incognito” author down the author list. This particular author causes repetition of citations leading to “shrunken” academic citations. As they feel comfortable writing and citing their own papers, these authors repeat references and that leads to “static citations”. Personal bias may be involved as well. Sometimes because of lack of ideas and time constraints, a new paper is generated from a few papers or from the paper of a colleague. Again, that inhibits the entry of new citations. It only causes “ripple” in the pool of citations. This leads to “shaken not stirred” phenomenon in terms of usage of newer citations.

Unfortunately, the assessment indices have failed to keep pace with the changing times and trends. You have rightly said that the “number of readings” are far more than the number of citations. This new trend should be considered in giving value to a paper. This metrics are available even for preprints. Honestly, most of us consult a huge number of papers daily in our wards for preparing cases without even noticing the author. So, the number of readings is much more than citations.

Sir, there is another point which we want you to kindly consider. While it is always possible to ask the authors to revise, many journals reject and return the paper with “a point of no return” and a harsh reply. It is quite an insulting occurrence for the author and usually the authors never return to publication. We should encourage a revision policy like being used by the SNI. It will help bringing the best in an author and will help inducting more people in academia, which is the need of the hour! The best editor and reviewer has the quality of bringing innovation out of any paper he/she reviews. We are grateful to the SNI for its generous and warm receptive intentions towards publications.

Sir, we will be honored to share our work with the SNI. We propagated your extremely kind words to our peers and it brought “life” to many of our fellows who had given up the idea of getting their work published internationally. Sir, you are a treasure of knowledge and you are blessed with the generosity of sharing. You are the leader as you let the others follow. Your letter has moved us all and it is like finding the light at the end of the tunnel.

Sir, we do understand that our countries need to give up to the old metrics and adopt the new ones. We think that we need persistent effort to make our authorities consider the new metrics. We do need time but it will only be in our favor if we combine our efforts and keep working to show them what really matters.

Thank you so much again for your time and consideration.