Citation metrics

One of the most basic citation metrics is how often an article was cited in other articles, books, or other sources. Citation rates are heavily dependent on the discipline and the number of people working in that area. For instance, many more scientists work in neuroscience than in mathematics, and neuroscientists publish more papers than mathematicians, hence neuroscience papers are much more often cited than papers in mathematics.

Similarly, review papers are more often cited than regular research papers because they summarize results from many papers. This may also be the reason why papers with shorter titles get more citations, given that they are usually covering a broader area.

While citation metrics are a convenient method of quantifying dissemination and have been used extensively in the neurosurgical literature to identify landmark publications, [1) 2) 3) 4) 5)] it is important to note that citation rate likely only represents a fraction of dissemination and readership. Indeed, there are many ways that a publication can be disseminated that do not involve citations, such as number of downloads, conference presentation, social media “hits,” etc. Furthermore, just because someone cites one's work does not mean that it has had clinical impact depending on where and in what context the guideline is cited.

1)
Khan NR, Lee SL, Brown M et al. . Highly cited works in skull base neurosurgery. World Neurosurg. 2015;83(4):403-418.
2)
Khan NR, Auschwitz T, McAbee JH, Boop FA, Klimo P. Highly cited publications in pediatric neurosurgery: part 2. Childs Nerv Syst. 2013;29(12):2215-2228.
3)
Wilcox MA, Khan NR, McAbee JH, Boop FA, Klimo P. Highly cited publications in pediatric neurosurgery. Childs Nerv Syst. 2013;29(12):2201-2213.
4)
Ponce FA, Lozano AM. Highly cited works in neurosurgery. Part I: the 100 top-cited papers in neurosurgical journals. J Neurosurg. 2010;112(2):223-232.
5)
Lipsman N, Lozano AM. Measuring impact in stereotactic and functional neurosurgery: an analysis of the top 100 most highly cited works and the citation classics in the field. Stereotact Funct Neurosurg. 2012;90(3):201-209.