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Editorial

Spot the seven errors. Playing the game in the submission of scientific articles (Part 5): the frog race

Dalmo Valério Machado de Lima[1], Eny Dórea Paiva[1], Ana Lúcia Abrahão[1], Antônio Claudio Lucas da Nóbrega[1]

1Universidade Federal Fluminense

ABSTRACT

Different measurement strategies with regard to what is published in scientific journals have been developed to safeguard and endorse the quality of their content. These strategies are based on mathematical models that, over time, have adapted to the different forms of expression of scientific knowledge. The unbridled race to citation and impact factor indexes, bibliometrics, scientometrics, webmetrics and other "numerolatrics" all turn into numerofobias, whether by sophistry or paralogisms. In any bibliometrical method of analysis there are two implicit assumptions: the representation of the author's research activity has resulted in the publication; the scientific publication is the result of the clash of ideas between this author's knowledge and that of other authors. The filing of journals by educational and research institutions strengthens its role as a promoter of science and a safeguard of key areas of knowledge that ultimately determine the independence of a society.

Descriptors: Publication quality; Access to Information; Evidence-Based Nursing.

Once upon a time there was a frog race. The frogs had to climb a big hill and on the side of the race course there was a large crowd, a lot of people rooting for and against them. The race started and the crowd started to shout: -- You won't make it! You're not going to make it![1]

This story, which is still told here, is a good representation of the moment experienced by journal editors in Brazil and throughout the world, where each one can be represented by one of the frogs from Brazilian writer Monteiro Lobato's fable.

Over the years, different measurement strategies of what is published in scientific journals have been developed in order to safeguard and endorse the quality of their content. The referred strategies are based on mathematical models that, over the years, have adapted to different forms of expression of scientific knowledge.

The unbridled race to citation and impact factor indexes, bibliometrics, scientometrics, webmetrics, and other "numerolatrics" all flow into numerofobias, whether by sophistry or paralogisms. These are contemporary ghosts that make us envy the most faithful disciples of Pythagoras.

In these terms we have bibliometrics, which refers to the application of statistical or mathematical methods to the references supplied in a study or work[2]. In any bibliometrical method of analysis there are two implicit assumptions: the representation of the author's research activity has resulted in a publication; and the scientific publication is the result of the clash of ideas between the knowledge the author has already acquired by reading the works previously produced and that of other authors.

Bibliometrics are supported by three classical laws: (i) Lotka's Inverse Square law, which estimates the level of relevance of authors in a given area of knowledge[3]; (ii) Bradford's law, which relates the level of productivity of journals[4] and (iii) Zipf's law, which describes the frequency of occurrence of words[5]. As a general rule, a quote from the most renowned authors raises the relevance of a particular journal; increasing the number of journals from an area under a given theme ends by demoting the least consulted ones; the shorter the terms used, the higher the chances of a citation.

The *Science Citation Index*, introduced by Eugene Garfield in 1963[6], was the first attempt at such an index to be widely accepted by the scientific community. In 2005, Jorge Hirsch proposes the *h-Index* which represented the number of articles with citations greater than, or equal, to it

But what is the real impact of the so-called "impact factor" for authors, editors and research consumers? Everything, since what is revealed is visibility, prestige, access to grants in the scientific production process. In other words it is ultimately the modulation of knowledge.

And what is the paradox that is not described in bibliometric laws that has been duly misrepresented by the global indexers? It is the fact that a citation scan only takes into account journals from the same indexing base. For example, the Thomson Reuters agency has a group of magazines called *Journal Citation Reports* (JCR) in which the average number of times JCR articles were cited, in the previous two years, by JCR magazines determines the impact factor of a specific journal in the third year[7].

The h-Index has been adopted by different agencies, foundations and repositories, including Scopus (Elsevier) and SciELO[8].

Considering the world of national nursing journals, we find a "select" group of four JCS magazines (including one which is currently suspended), and also seven Scopus and seven SciELO journals, totaling nine and not 18, due to redundancy. Therefore, the measurable scientific production of Brazilian nursing is restricted to nine journals that feedback on themselves

The Higher Education Personnel Training Coordination Unit of the Ministry of Education (Capes/MEC), in its four-yearly area report, takes into account these indicators for the evaluation

of graduate programs and, therefore, for the stratification of journals into A2 A1, B1, B2, B3, B4, B5 and C which together total more than 40 nursing titles, to keep mentioning this example.

The REVENF is a database that follows the same technological and formatting model of SciELO[9], and today includes 16 nursing journals. However, those that are contained in the SciELO database are omitted from REVENF, thereby reducing its visibility. In other words, although the base encompasses 16 journals, those that are also contained in the SciELO database are not presented as REVENF to the reader, so that, publicly, they are strictly SciELO journals, since they are mutually exclusive.

To worsen the situation, either by the need for equalization to international standards of publication, or by digression, SciELO has been signaling to the editors about the increased operating costs for the maintenance of journals in its collection, and therefore including the ones in REVENF, while at the same time this makes the inclusion of other journals an almost impossible task[9]. The immediate consequence of this will appear in two possibly concomitant ways: increased costsfor authors and/or the absorption of the cost by the journals. Since most of them are related to public education institutions, this burden is transferred to the taxpayer.

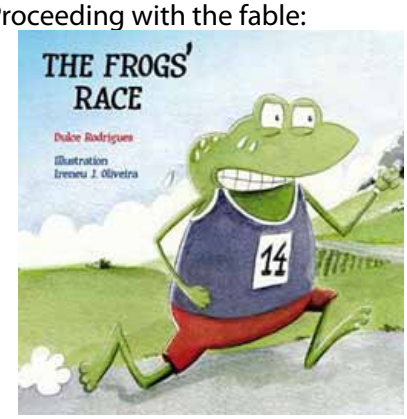
This perverse logic, here represented by the nursing segment, can be projected to all areas of knowledge. In the present case, the cost increase will fall on SciELO and REVENF journals in an uneven way, since the "proposal" is these must pay triple the amount that SciELO journals will pay. It is not difficult to predict what will happen to the REVENF collection which, as compared to the SciELO one, has fewer "impacting" reviews. Moreover, what will happen to the journals that are not able to absorb this additional cost? Will they simply be excluded from the REVENF collection? What answer will be given to the general public about the periodic injection of public funds with regard to the inclusion of a journal in a scientific knowledge diffusion collection?

This cost increase, judging by the economic situation in the country, is not only anachronistic, it is autophagic, to the extent that it will restrict even more the opportunities for publication, acting therefore as a disservice to the national nursing scientific production, to stick with this example, and a disrespect to the Brazilian people.

Scientific writing in nursing is expanding greatly in Brazil[10]. This expansion is at risk from this type of policy that includes no discussion about the quality of science.

The archiving of journals by educational and research institutions strengthens their role as a promoter of science and acts as a safeguard of key areas of knowledge that ultimately determine the independence of a society. Therefore, internationalization should not be mistaken as subservience or colonization.

Proceeding with the fable:



The little frogs were giving up, one by one, except for one which kept on going without much trouble. And the crowd continued to shout: -- You are not going to make it! You won't make it! At the end of the race, all the little frogs had given up except for that one. Everybody wanted to know what had happened. When they asked the frog how he had made it to the end, they found out that he was DEAF![1]

Like the deaf frog, Brazilian nursing journals can easily overcome what appears to be a difficult challenge.. For this, they have their

legitimate representative, the REVENF, guided by Capes. This, in a way, already has its group of journals which is pre-assessed by the Qualis system, and an initiative in this sense was already presented at the 17th National Seminar on Nursing Research, held in Natal - RN, Brazil, in 2013, through a pilot study about creating a free and democratic citation index based on the Qualis-Capes database.

The REVENF may return to the Bireme project which enables it to attract grants from national and international organizations. There is also a free collaborative project about environment bibliometrics already underweigh in the form of the *Open Journal Systems* (OJS).

Currently, 20% of all the access to OBJN occurs from the United States and at no time in its history has OBJN been part of the SciELO collection.

Therefore, let us be the deaf frog. Let us make a collective and integrated effort for the common good. Let us relieve the burden on the authors and the taxpayers. Let us provide our technical experts with the means of improving bibliometrics tool in an open access environment, and let us promote REVENF and Capes as the guardians of the quality of scientific publications in terms of Brazilian nursing. Let us dream this possible dream, let us say no when the pressure is to give in!

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