

## Importance of Journals Impact Factor on Authors Valuation

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### Abstract

**Introduction:** With the introduction of electronic databases in the end of the 20th century, scientific dissemination has entered a new era of scientific advancement. These databases have accepted scientific journals, regardless of their impact factors, and their articles have been equally presented. In this new reality, the search for knowledge is no longer based on the value of the journal, but on the content quality of the articles, without considering the name of their authors. Considering that impact factors and most other indexes were created to classify scientific journals, it is unsuitable to use them to evaluate the authors of published articles, much less to qualify researchers or their works. A correct conclusion cannot be reached using an inappropriate evaluation method.

**Conclusion:** There are adequate indexes to classify scientific journals, but these indexes were not created and should not be used to evaluate authors of scientific articles or researchers, so as to avoid serious mistakes and injustices.

**Keywords:** *Classification; Index; Authors; Researchers; Journals; Impact factor*

### 1. Introduction

Health records made by religious leaders, health caregivers and physicians have been made since the beginning of writing in all civilizations and their value depends on the knowledge of those who wrote them and their evidence over time. Medical societies were created to bring together professionals with the same interests in human health. Personal case reports and discussions among professionals with experience resulted in knowledge that was disseminated through scientific documents. In the 19th century, scientific articles from medical associations were gathered in journals belonging to each of the medical societies, which gave them credibility.

With the advancement of knowledge and the number of physicians, new journals have emerged that were not linked to societies and that have also brought relevant articles, based on the professional experience of each author. The importance of journals began to be classified by indexes, according to the number of articles published by them and those which were used

as scientific references [1,2]. To obtain a high classification, the journals formed editorial boards and reviewers with medical knowledge to evaluate and select the relevant articles to be accepted for publication. Thus, all articles published in the best classified journals have been considered relevant, not for their own value, which is many times very low, but rather due to the journal's importance [3,4].

By contrast, articles published in journals classified with lower-level impact have been undervalued. This prejudice impaired many excellent works, produced by high scientific level researchers, which have not even been read. The loss of the knowledge included in those articles has brought irreparable damage to researchers; to patients, who could have benefited from this to the scientific information; and, consequently, to the development of the Medicine.

With the introduction of electronic databases in the end of the 20th century, scientific dissemination has entered a new era of scientific advancement. These databases have accepted scientific journals, irrespective of their impact factors, and their articles have been equally presented. In this new reality, the search for knowledge is no longer based on the value of the journal, but rather on the content quality of the articles, regardless of the name and importance of their authors [1,2,4].

The first known citation index is attributed to Moses ben Maimon (Maimonides or Rambam), dating to the 12th century. He alphabetically organized biblical phrases. Later, indices were used for the classification of studies on all human knowledge, generally without mentioning their authors. The most important academic citation indexes related to Medicine include Index Medicus, published by the Library of the Surgeon General's Office of the United States Army, whose name was later changed to The United States National Library of Medicine (1879). This library's main focus was the title of the articles, but it also mentioned the authors' names and the complete data from the journals where the articles were published. The authors were also listed separately in alphabetical order with their mailing addresses [1,5,6].

Researchers have always been assessed indirectly, initially through the Citation Index (CI), created at the Institute for Scientific Information (ISI) in 1960 to specifically classify articles according to the number of their citations in scientific literature. The Impact Factor (IF) was devised by the Institute for Scientific Information (ISI) and published by the Journal of Citation Reports (JCR) in 1961 to organize journals by the relevance of their articles, based on the number of citations, without taking into account their authors. Other indices used in Medicine to catalogue journals, but not authors or scientific works, include Medline database by the National Library of Medicine (1971), PubMed by the National Library of Medicine (1996), CiteSeer by the NEC Research Institute (1997), the Web of Science by Clarivate Analytics (2000), Scopus by Elsevier (2004), Google Scholar (2004), Microsoft Academic Search (2012 and after 2016) and Cite Score by Elsevier (2016) [1,5,6,7].

The h-index was created by Jorge Eduardo Hirsch specifically to evaluate researchers through citations of their scientific products, articles and patents. Even this index is not adequate, as it puts all authors of articles on equal terms, regardless of their number and location in the authorship. This and other indexes consider to be of equal value excellent articles, which are many times cited due to their great relevance, and terrible articles, which are also many times cited merely to mention that they must be discharged from the medical literature and forgotten [5,8].

The evaluation of the author, the work and the journal, can be understood by using the example of a museum. The reputation of a museum is given by the amount of relevant works of arts, some of them known by their authors and others anonymous. Even in an outstanding museum, most of the works have little artistic value and are included in them for several reasons, sometimes with no relationship whatsoever to art. Obviously, having a work inside a famous museum is an honor for all artists, even if it has never been observed or mentioned. In reality, the great work gives value to the museum but not to the other works around it. As an example, the Museo Reina Sofia in Madrid is visited by an immense number of people only interested in seeing the extraordinary painting Guernica by Pablo Picasso. Other works can also be seen there, but they are very rarely or never cited.

Considering that impact factors and most other indexes were created to classify scientific journals, it is unsuitable to use them to evaluate the authors of published articles, much less to qualify researchers or their works [1,4,7,8]. A correct conclusion cannot be reached using an inappropriate evaluation method.

Based on all electronic indexes, which are easily opened, to produce an index to classify scientific authors is not a hard feat. The number and place of the authorships, the number of citations related to each work and the relevance of the obtained product are accessible and useful to create a harmless index without bias for researchers as authors.

## **2. Conclusion**

There are adequate indexes to classify scientific journals, but these indexes were not created and should not be used to evaluate authors of scientific articles or researchers, so as to avoid serious mistakes and injustices.

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## **4. Conflict of Interests**

The author declares no conflict of interest related to this study and its publication.

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