

Òscar Miró¹

On the evaluation of investigator importance

¹Àrea de Urgències
Hospital Clínic
Barcelona

Dear Editor:

Ramos-Brieva and Cordero-Villafáfila propose an algorithm to calculate the personal impact factor (IF) that would help to better evaluate the investigator importance of a specific scientist than that which is currently done with the available bibliometric indicators.¹ Personally, I consider this to be a very interesting proposal since this is the first time that it is being openly contemplated to provide a weight to an indicator for the contribution of each author. In this case, the authors apply it to the IF, basing the weight on the order of the signing author. In recent years, a continuous increase in the number of authors is being observed, partially because of the greater complexity of the works. However, this is also partially because the investigator structure is becoming increasingly more multicenter-based and based on research networks.^{2,3} This fact (increase in the number of signing authors) does not question that the universally accepted criteria of authorship are met by all of the signers of a work.⁴ It underlines an undeniable fact: not all of them have participated equally and with the same intensity. Other aspects regarding the proposal of Ramos-Brieva and Cordero-Villafáfila also seem remarkable, such as giving a different consideration to the citations based on the typology of the citing articles. Something similar is already taken into account by Scopus and its Scimago Journal Rank, and also by Google Scholar. In both cases, the weight of the citations depends on the reputation of the citing journal.⁵

Furthermore, I would like to make an additional point. All the indicators evaluated up to date (including that of Ramos-Brieva and Cordero-Villafáfila) have stressed the evaluation of the authors at a specific moment, without considering the dynamic aspect. Indeed, I believe that

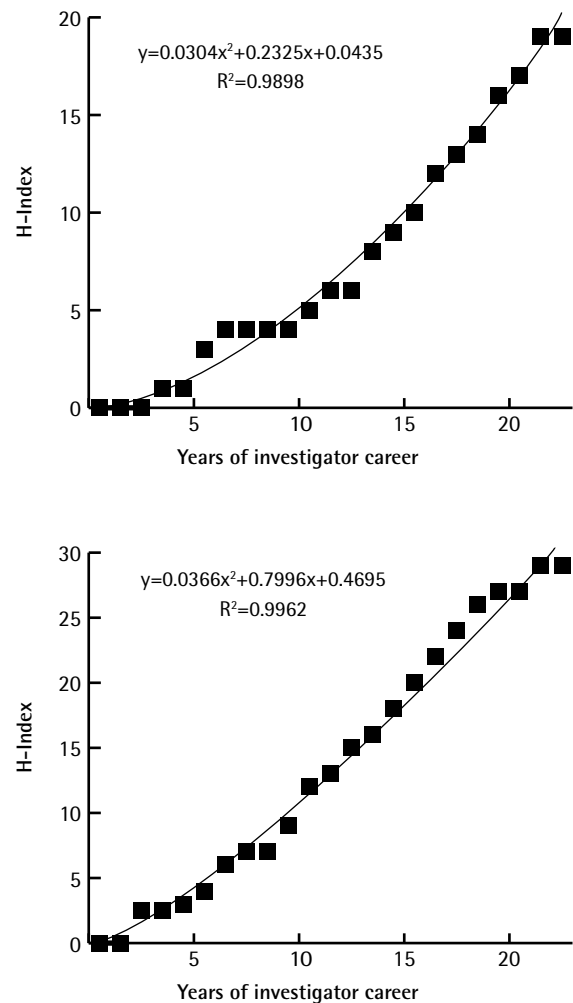


Figure 1

Example of evaluation of the H-index during the investigator career of two investigators in Emergency Medicine. The adjustment line corresponds to a quadratic model, with the formula included in the figure

Correspondence:
Òscar Miró
Àrea de Urgències
Hospital Clínic
Villarroel 170
08036 Barcelona, Spain

considering the personal investigator record over time as a whole can contribute to mitigate some limitations of the bibliometric indicators. Among other aspects, it would make it possible to observe increases or decreases in productivity rhythm. Knowledge of this is very important when making decisions regarding allotment of positions or resources. Thus, in an approach to the investigator career of *emergency physicians* through the annual measurement of the H-factor from the beginning of the investigator's career, we have recently discovered some growth curves with very good personal adjustment, with R^2 values greater than 0.90 for all of them.⁶ Figure 1 shows the case of two of them. Although research in Emergency Medicine is not especially characterized by elevated activity,^{7,8} these findings are promising, especially if they are confirmed with authors in areas of medical knowledge having greater investigator activity, as is the case of Psychiatry. Thus, I believe that we could satisfactorily refine some of these indicators by combining the proposal of the authors with others that have recently appeared in the literature^{9,10} and with this dynamic evolutive perspective that I am mentioning. In this way, in a short time, we could have an indicator that would reliably show the true importance of an investigator.

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