

Abstract

Background and Objectives: The essence of researchers' thought and attitudes or the results of their research fundings emerge in the form of books or articles. Since the production of science alone cannot be regarded as a valid indicator for the development of countries, a measure is needed to assess the validity of the produced articles. Because the citation cannot indicate the validity of the work alone, it is necessary to use other indicators such as the text citation frequency and citation portion to study the qualitative aspects of this index. The purpose of this study was to determine the validity of Iranian articles in the field of pharmacology based up on their citation value in Web of Science based on text citation frequency and citation portion.

Methods: A citation analysis survey was conducted using citation analysis. The research population included the Iranian pharmacology papers published on the Web of Science database in 2012. A sample of 382 cited articles in the field of pharmacology was selected randomly out of 1698 retrived Iranian articles for data collection, Excel, Endnote and the Statistical Package for Social Science (SPSS) were used. Data analysis was done using descriptive and inferential statistics. To determine the text citation portion and the best Iranain articles and writers based on the text citation portion and textual citation frequency, the mean frequency and percentage and to measure the relationship between citation rate and text citation frequency and citation portion as well as the relation of each pair with self-citation the Spearman correlation coefficient was used.

Results: The Articles under study received 1841 citations. The mean citation portion was 1.09% the lowest level of which was 0 and the highest one was 3.14. The mean textual citation frequency was 1.31%, the lowest level of which was 0 and the highest one was 7.5. The average self-citation in articles was 0.46% the lowest level of which was 0 and the highest one was 5.6. The results also showed a direct and significant relationship between citation and textual citation frequencies and a significant relation between textual citation frequency and citation portion and self-citation. But there was no significant relationship between citation frequency and citation portion.

Conclusion: Despite the fact that Iran has a high position among the countries of the world in terms of the growth of scientific production, in this study most articles have the least citation value in the field of pharmacology. Therefore, since citations do not have the same value, instead of relying solely on a quantitative and superficial valuation based on simple counting in Iran's research evaluation system, it is necessary to evaluate the articles more accurately and objectively using qualitative assessments derived from valuated indicators and use measures such as textual citation frequency, citation portion and citation location as the criteria for scientific and research evaluation of researchers.

Keywords: scientific production, citation value, textual citation frequency, citation portion, Web of Science database, Iran's Pharmacology