

Plagiarism and misconduct in research: where we are and what we can do

Plágio e condutas inadequadas em pesquisa: onde chegamos e o que podemos fazer

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The scientific community has shown lately great concern with the reports of misconduct. This is addressed daily in various media, scientific or not. A quick search of the literature by the term "plagiarism" or "misconduct" generates more than 8,000 articles in English at PubMed. Figure 1 shows that the vast majority of these publications occurred over the last 20 years.

The expenditure with inadequate scientific conduct is difficult to estimate. In summary, we assume that the scientific results arising from these studies are useless and therefore the direct and indirect research costs and expenses, not investments. Direct costs are more tangible for being related to research funding (services, equipment, supplies, travel, etc.). Indirect costs may assume huge magnitudes, as they relate to the damage caused to patients and future research due to inadequate data and conclusions presented⁽¹⁾. The human harm is even more important when we consider the recurrence of fraudulent results. In 2009, the same investigator was found guilty in the publication of over 20 articles, mostly on the use of non-steroidal anti-inflammatory drugs in the per operative period, it is estimated that millions of patients have been inappropriately treated based on these results⁽²⁾. Waste of money with inadequate research was estimated at over half a million dollars in one case and more than one hundred million dollars a year, in the United States⁽³⁾. If we assume that the number of articles published annually nearly doubled in the past 10 years, reaching almost 2 million in 2010⁽⁴⁾ and that the percentage of articles presenting misconduct can reach more than 20%⁽⁵⁾, we can perceive that research ethics should be a concern of the population, payers and serious researchers^(6,7).

This loss reflects even in private industries that failed to reproduce most results published in scientific journals, creating seemingly promising drugs that have never been commercially available to the public⁽⁸⁻¹⁰⁾.

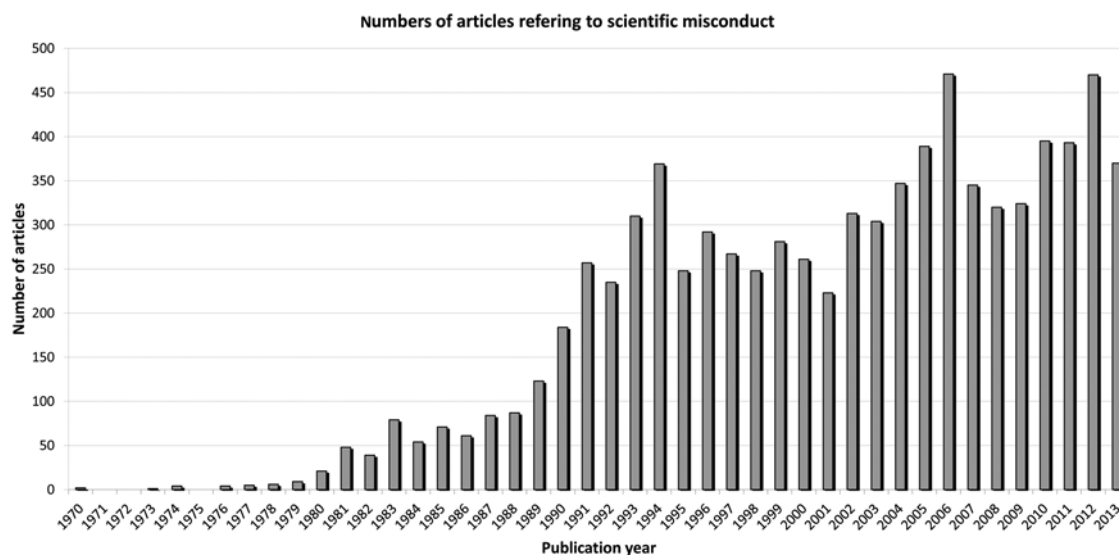


Figure 1. Number of articles published per year containing the words "Misconduct" or "Plagiarism" and are indexed in the PubMed database. The total number of publications is 8,344 articles, but the chart only represents the interval between 1970 and 2013.

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Recently, Science journal published what appears to be the most shameful situation for science^(11,12). In this article it was revealed a scheme to sell authorship on papers already accepted for publication in indexed and journals with a high impact factor. For up to \$ 26,000 the researcher can buy the co-authorship of a manuscript. This valorization of the impact factor in the promotion of scientists has led to the American Society for Cell Biology to create, in 2012, the San Francisco Declaration on Research Assessment, DORA), stating that the impact factor should not be used in assessing the quality of scientific articles^(13,14). Randy Schekman, Nobel laureate in physiology or medicine 2013, has assumed similar posture⁽¹⁵⁾.

The detection of plagiarism is one of the difficult tasks of the editorial board of a scientific journal. Editors and reviewers often have to search in particular databases, trying to identify if the text submitted for publication has been presented by the same or other authors. The ABO will shortly initiate a partnership with the company iThenticate, through SciELO to make automated search for plagiarism part of the evaluation of submitted manuscripts. This partnership was made possible only thanks to the unconditional support of SciELO to improve the quality of Brazilian scientific journals.

The iThenticate was created in 1996, the number of scientific publishers who use this program increased more than tenfold between 2008 and 2011, reaching currently tens of thousands of journals. Currently, one third of academic journals has access to this plagiarism detection software and more than 2 million articles are evaluated annually.

The ABO is proud to be the first Brazilian medical journal using the iThenticate program!

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