International participation in collaborative studies published in pulmonology journals: where does the Brazilian Journal of Pulmonology rank?

Participação internacional em estudos colaborativos publicados em revistas de pneumologia: onde está o Jornal Brasileiro de Pneumologia?

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To the editor:

We read with great interest the editorial on works in the field of tuberculosis study published in the May/June issue of the Brazilian Journal of Pulmonology (BJP). We would like to further that discussion by analyzing collaborative studies published in the BJP and comparing them with those published in a leading American journal—Chest—and those published in an European journal—the European Respiratory Journal (ERJ).

Because of scientific advances and the increasing complexity of the sciences, there is a trend toward an increased number of studies involving the collaboration of several institutions. Collaborative studies are defined as joint research projects conducted at multiple institutions (inter-institutional cooperation), whether in the same country (national collaborative studies) or in more than one country (international collaborative studies). There are also multicenter studies, characterized by parallel research efforts at various institutions, all of which not only use the same protocol but also exchange experiences and share knowledge.

Globalization has significantly increased the number and size of international collaborative studies, as well as their diversity. However, few studies have objectively assessed the changing profile of scientific articles in relation to collaborative studies. Therefore, our objective was to assess the number of collaborative studies published in representative pulmonology journals in three different regions of the world—Latin America (the BJP), the United States (Chest), and Europe (the ERJ).

We analyzed all original articles published in 1997 or in 2007. Collaborative studies were defined as those involving two or more institutions. International collaborative studies (involving two or more countries) were analyzed separately. Multicenter studies were defined as those in which the same protocol was used at more than one institution. The proportions of original collaborative studies, international collaborative studies, and multicenter studies published in each journal in each of the years selected were compared with the chi-square test.

The number of original articles published in 1997 and 2007, respectively, were as follows: 20 and 70 in the BJP; 366 and 377 in Chest; and 349 and 230 in the ERJ. In the BJP and in Chest, the proportion of collaborative studies published was significantly higher in 2007 than in 1997: 36% vs. 10% (p = 0.029) in the BJP; and 42% vs. 29% (p = 0.01) in Chest. In the ERJ, the proportion of collaborative studies published was high in both years but was not significantly higher in 2007 than in 1997: 69% vs. 66% (p = 0.56).

In Chest, the proportion of international collaborative studies published in 2007 did not differ significantly from that of those published in 1997 (8% vs. 9%; p = 0.57). However, the proportion of multicenter studies increased significantly from 1997 to 2007 (from 6% to 11%; p = 0.028). In the ERJ, the proportion of international collaborative studies increased significantly from 1997 to 2007 (from 11% to 29%; p < 0.01), as did the proportion of multicenter studies (from 7% to 14%; p < 0.01). In the BJP, only one international collaborative study was published in 1997, and none were published in 2007; nor were there any multicenter studies published in either of the two years analyzed.
The progressive increase in the number of national and international collaborative studies found in major scientific journals in the field of pulmonology is in accordance with the findings of similar studies of other fields.\(^{[1-5]}\) From 1997 to 2007, the BJP more than tripled the overall number of original articles published, with a parallel increase of the same order in the number of national collaborative studies. However, international collaborations and international multicenter studies are still scarce in the BJP. Articles involving international collaboration seem to enjoy greater visibility among researchers because they are mostly published in journals of higher impact. This becomes more evident in studies conducted in developing countries\(^{[6]}\) and is related to the global trend toward improved quality of research.

Various factors can account for the small number of international studies published in the BJP. One major difficulty found in collaborative studies is the establishment of research priorities. Understanding such determinants is essential for the development of policies to guide research planning in the medical field. This is even more necessary in developing countries, which have scarce resources for research.\(^{[3,5]}\)

It should be emphasized that a collaborative effort does not necessarily translate to an article of higher quality; it can simply reflect a unilateral exchange of information or even the inclusion of an international researcher in order to facilitate the publication of the study. Another difficulty found in Brazil is the current criteria for project authorship that have been instituted by the entities that provide financial support for graduate studies. Despite all the potentially negative aspects of international collaborations, we cannot deny that they represent a natural and welcome advance in the scientific world.

We conclude that the increasing number of original articles and multi-institutional collaborative studies published in the BJP reflects a significant improvement in the quantity and quality of Brazilian research in pulmonology. However, we cannot expect the number of collaborative studies to increase spontaneously. Specific policies designed to promote such studies should be encouraged, especially by funding agencies and medical societies.

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