

Letter to the Editor

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Research output in orthopedics and sports medicine from Latin America

Resultados de la investigación en ortopedia y medicina del deporte en América Latina

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The current population of Latin America and the Caribbean stands at approximately 665 million people. This vast region spans from Mexico to Cape Horn and accounts for only ~ 8.37% of the global population, and currently there are 33 countries in Latin America and the Caribbean.¹

We searched and analyzed the research output in the area of Orthopedics and Sports Medicine (OSM) from Latin America, using Scopus data, through SCImago website.² We also compared various publication metrics among the Latin American countries and globally.

We found that during the years 1996 to 2022, Latin America published a total of 23,307 related to OSM, with 3.49% global share (23,307 out of 668,479). Among all the participating Latin American countries, Brazil was ranked at the top with the majority contribution of 15,864 papers (68.06%), followed by Chile, Argentina, Mexico, and Colombia (Table 1).

In 2022, Brazil remained at the top among all the Latin American countries, with a total of 1,589 publications out of a total of 2,616 Latin American publications from 28 participating countries, thus having 60.74% share. Only 5 Latin American nations (Brazil, Chile, Colombia, Argentina, and Mexico) contributed more than 100 papers in a year, whereas 6 published 20-36 papers, and the remaining 17 nations could only publish 1-6 papers only, in 2022 (Table 1).

It is to be noted that these publications and data are based on the papers published in the Scopus database only, and hence any publications coming out of Latin America in non-Scopus indexed journals are not included in this analysis.

Most of the Latin American countries are developing nations and do not have enough resources of their own to spend adequately on research and hence their global contribution to research and publication is much lower than the developed nations of North American, Europe and China. It is well-known that the infrastructure, and healthcare delivery resources are limited in developing countries, as compared to the developed nations. Hence, these lesser privileged nations have to rely on the research findings and recommendations of the research done in other countries (mostly of developed nations), in their clinical practice. This conflict is not appropriate as the health-related problems, financial affordability etcetera are quite different and may not be applicable to the population of the developing countries.³ Hence, it is crucial that the research is promoted and supported in Latin America, to address their health-related problems amicably and find cost-effective treatment modalities for their population. Since, Brazil is spearheading in the economy and health care delivery in Latin America, it could help the other nations, by the way of research collaboration, funding, and mentorship.

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Table 1: Research output in orthopedics and sports medicine of the top 10 Latin American countries during 1996 to 2022, and in 2022.

| Rank | Country | Documents | Citations | Citations per document | H index |
|-----------|-------------|-----------|-----------|------------------------|---------|
| 1996-2022 | | | | | |
| 1 | Brazil | 15,864 | 194,730 | 12.27 | 130 |
| 2 | Chile | 1,870 | 23,107 | 12.36 | 67 |
| 3 | Argentina | 1,519 | 19,942 | 13.13 | 64 |
| 4 | Mexico | 1,192 | 15,459 | 12.97 | 55 |
| 5 | Colombia | 1,059 | 10,277 | 9.70 | 48 |
| 6 | Cuba | 511 | 834 | 1.63 | 11 |
| 7 | Puerto Rico | 167 | 2,811 | 16.83 | 30 |
| 8 | Costa Rica | 146 | 1,519 | 10.40 | 21 |
| 9 | Ecuador | 125 | 1,076 | 8.61 | 15 |
| 10 | Peru | 119 | 741 | 6.23 | 14 |
| 2022 | | | | | |
| 1 | Brazil | 1,589 | 1,095 | 0.69 | 130 |
| 2 | Chile | 338 | 511 | 1.51 | 67 |
| 3 | Colombia | 171 | 104 | 0.61 | 48 |
| 4 | Argentina | 158 | 72 | 0.46 | 64 |
| 5 | Mexico | 146 | 148 | 1.01 | 55 |
| 6 | Cuba | 38 | 1 | 0.03 | 11 |
| 7 | Puerto Rico | 32 | 9 | 0.28 | 30 |
| 8 | Peru | 31 | 9 | 0.29 | 14 |
| 9 | Ecuador | 25 | 16 | 0.64 | 15 |
| 10 | Costa Rica | 20 | 23 | 1.15 | 21 |

Data source: SCImago website.²

References

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