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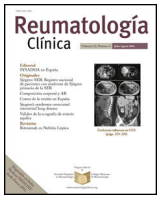

Brief report

Publication outcomes of abstracts presented at the Argentine Congress of Rheumatology☆

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ABSTRACT

Objective: To analyse the outcome of scientific abstracts submitted to the Argentine Congress of Rheumatology (ACOR) in 2000, 2005, 2010, and 2015.
Methods: Every abstract submitted to the ACOR was analysed. The number of these manuscripts published was determined through Google Scholar and PubMed searches. The impact of the scientific journals was established through the SCImago Journal (SJR) indicator.
Results: Considering the 727 abstracts evaluated, 10.2% of the articles were found in journals indexed by Google Scholar, and 6.6% in PubMed: 4.7% were published in 2000, 9.4% in 2005, 14.6% in 2010, and 11.9% in 2015 (Log Rank test 0.008), with a statistically significant increase between 2010 and 2015 compared to 2000 (HR 3.3; 95% CI 1.5–7; *p* 0.002 and HR 2.9; CI 1.4–6.3; *p* 0.005 respectively). The median SJR of the journals was 0.46 and 67.6% had SJR available.
Conclusions: The publication rate was low, and only a few articles were published in the most prestigious journals within the speciality.

Tasa de publicación de los resúmenes presentados al Congreso Argentino de Reumatología

Palabras clave:
Presentación de resúmenes
Publicación revisada por pares
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RESUMEN

Objetivo: Analizar la tasa de publicación de los resúmenes presentados al Congreso Argentino de Reumatología (ACOR) en 2000, 2005, 2010 y 2015.
Métodos: Todos los resúmenes enviados al ACOR fueron evaluados. Se determinó la tasa de publicación mediante una búsqueda en Google Scholar y PubMed. Se examinó la relevancia de las revistas científicas a través del indicador SCImago Journal (SJR).
Resultados: Se evaluaron 727 resúmenes. Se encontró un 10,2% de artículos publicados en revistas indexadas por Google Scholar y un 6,6% en PubMed. El 4,7% fueron publicados en 2000, el 9,4% en 2005, el 14,6% en 2010 y el 11,9% en 2015 (Log Rank test: 0,008), con un aumento estadísticamente significativo entre 2010 y 2015 frente al 2000 (HR: 3,3; IC 95%: 1,5-7; p = 0,002 y HR: 2,9; IC 95%: 1,4-6,3; p = 0,005, respectivamente). La mediana del SJR de dichas revistas fue de 0,46, y el 67,6% tenían SJR disponible.
Conclusiones: La tasa de publicación es baja, y solo unos pocos trabajos fueron publicados en las revistas más prestigiosas de la especialidad.

☆ This study was presented at the 54th Argentine Congress of Rheumatology that was held in Buenos Aires, Argentina, 8–11 December 2021. It has not been published or submitted for publication elsewhere.

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Introduction

"Publish or perish" constitutes a career imperative for researchers around the world. Publications contribute to the curricular development of practitioners or postgraduate trainees and relate to a reward system that ranges from facilitating access to new research funding to improving career or academic prospects.[1,2]

Publishing is an obstacle course, particularly for professionals from developing countries. A review of the rheumatology literature showed that 20 countries monopolised most of the publications between 2019 and 2020. The Americas were represented only by the United States, Canada, and Brazil.[3]

A study published in 2013[4] analysed all the abstracts presented at the 2006 American College of Rheumatology (ACR) meeting and revealed that almost 60% of those manuscripts were ultimately published. The 15 countries with the highest number of published manuscripts were identified and the Americas were represented only by the United States, Canada, and Brazil.

The Argentine Congress of Rheumatology (ACOR) is often a preliminary step to publication in scientific journals. Therefore, this study was carried out with the aim of analysing the abstracts submitted to the ACOR in 2000, 2005, 2010, and 2015, determining the percentage that was eventually published, and examining both the factors associated with their publication and the characteristics of the scientific journals in which they were published.

Methods

A bibliometric analysis was performed. Every abstract published in the Argentine Journal of Rheumatology that had been presented at the 2000, 2005, 2010, and 2015 ACOR was appraised. Years ending in 0 and 5 were arbitrarily selected. They were classified according to presentation format (oral or poster), number of participating centres, number of patients, and type of abstract.

Abstracts were classified as: (a) case reports, (b) observational studies (cross-sectional, case–control, and cohort studies), (c) experimental studies with drugs or devices (open-label studies, randomised controlled clinical trials, or meta-analyses of clinical trials), and (d) basic sciences.

Two researchers (LA and MPP) created a database of all the abstracts, and hand-searched every paper presented at the ACOR in order to determine how many had been published in PubMed by 31 December 2021. Another researcher (GS) repeated the search in Google Scholar, which indexes several Spanish-language scientific journals (e.g., the Argentine Journal of Rheumatology).

The search was based on the first 3 authors and the subject of the study. In case of a positive search, the summary was analysed to determine whether the paper found was the same as the one presented at the congress. In case of doubt, the articles were flagged, and the issue was resolved with the agreement of the majority of the authors.

The published manuscripts could have a different number of patients, longer follow-up, and greater statistical complexity than the abstracts submitted to the congress as long as they (a) maintained a common idea, and (b) shared researchers.[4] The time in months from presentation at the congress to publication was calculated for every manuscript. A list of the journals that published the articles was compiled, and their inclusion in PubMed was verified.

In a search carried out by the authors on 11 October 2022, the SCImago Journal indicator (SJR) for the year 2021 of each journal was recorded (https://www.scimagojr.com/). The SJR indicator "*is a measure of journal's impact, influence or prestige*" and "*expresses the average number of weighted citations received in the selected year by the documents published in the selected journal in the three previous years*".

Information on statistical analyses

Descriptive analysis was performed for every variable. Frequencies and percentages were used for categorical variables. For continuous variables, median with interquartile range (IQR) was employed. Nominal variables were analysed through either the Chi-squared test or the Fisher's exact test as appropriate. Mann–Whitney *U* test and Kruskal–Wallis *H* test were applied to compare medians as appropriate. The Log Rank Test, and the Cox Proportional Hazards Model were utilised to explore survival for the groups. A $p < 0.05$ in a two-tailed test was considered statistically significant. Epi Info version 3.5.4 was used for statistical analysis.

Compliance with ethical standards

Since the information analysed was in the public domain, authorisation from the Ethics Committee was not requested.

Results

General characteristics of the abstracts

Seven hundred and twenty-seven abstracts were analysed (see Table 1). In accordance with the Google Scholar search, 74 articles (10.2%) were found and the median time to publication was 24.5 months (IQR 15–42). When the search was limited to journals indexed by PubMed, 48 articles (6.6%) were found and the median time to publication was 28.5 months (IQR 20.5–43.5).

Factors associated with publication and publication rate

When the 74 articles found in the Google Scholar search were examined, the median number of months from presentation at the congress to publication was 19 (IQR 8–20) in 2000, 25 (IQR 16–38) in 2005, 25.5 (IQR 20–33) in 2010, and 26.5 (IQR 11–43) in 2015 (p 0.7).

Twenty-three (18.7%) of the abstracts selected for oral presentation were published versus 51 (8.4%) of those submitted as posters (p 0.001). Forty (7.6%) manuscripts with the authorship of a single centre were published versus 34 (16.7%) with the authorship of more than one centre ($p < 0.001$). The median number of patients studied in the published articles was 53 (IQR 14–117) versus 34 (IQR 1–93) in the manuscripts that were not published (p 0.005).

The total number of published articles indexed by Google Scholar increased from baseline values: there were 9 (4.7%) in 2000, 13 (9.4%) in 2005, 26 (14.6%) in 2010, and 26 (11.9%) in 2015 (Log Rank test 0.008). The differences were statistically significant for 2010 versus 2000 (HR 3.3; 95% CI: 1.5–7.0; p 0.002), and for 2015 versus 2000 (HR 2.9; 95% CI: 1.4–6.3; p 0.005).

The number of published articles found in PubMed also increased as follows: 4 (2.1%) in 2000, 9 (6.5%) in 2005, 15 (8.4%) in 2010, and 21 (9.6%) in 2015 (Log Rank Test 0.02).

Analysis of the journals that published the manuscripts

Of the 74 articles found in Google Scholar, 39 (52.7%) were published in journals that accepted manuscripts written in Spanish. Table 2 enumerates the journals with more studies published and their SJR indicators. On the other hand, 50 (67.6%) manuscripts published in journals with available SJR indicators were identified: the median of the journals was 0.46 (IQR 0.31–0.87).

Table 1
General characteristics of the abstracts submitted to the Argentine Congress of Rheumatology.

	2000 (*n* 193)	2005 (*n* 138)	2010 (*n* 178)	2015 (*n* 218)
Oral presentations	50 (25.9%)	22 (15.9%)	31 (17.4%)	20 (9.2%)
Studies with the authorship of a single centre	153 (79.3%)	89 (64.5%)	150 (84.7%)	132 (60.6%)
Types of abstracts				
a. Case report	82 (42.5%)	40 (29.0%)	66 (37.0%)	72 (33.0%)
b. Observational studies	106 (54.9%)	86 (62.3%)	105 (59.0%)	138 (63.3%)
c. Experimental	5 (2.6%)	3 (2.2%)	6 (3.4%)	4 (1.8%)
d. Basic sciences	0 (0%)	9 (6.5%)	1 (0.6%)	4 (1.8%)
Median number of patients studied	28 (IQR 1–55)	38 (IQR 1–113)	39 (IQR 2–90)	47 (IQR 2–110)

IQR: interquartile range.

Table 2
SCImago Journal Rank indicator (SJR) for the journals with the largest number of published articles.

	Articles published	Accepts submissions in Spanish	SJR
Revista Argentina de Reumatologia. (Argentine Journal of Rheumatology)	15	Yes	N/A
Reumatología Clínica	12	Yes	0.31
Journal of Clinical Rheumatology	10	No	0.46
Clinical Rheumatology	6	No	0.87
Rheumatology	3	No	1.56
New England Journal of Medicine	2	No	24.91
Journal of Rheumatology	2	No	1.29
Clinical and Experimental Rheumatology	2	No	1.12
Revista de la Facultad de Ciencias Médicas de Córdoba. (Journal of the Faculty of Medical Sciences of Cordoba)	2	Yes	0.17

Discussion

Throughout the analysis of the four congresses, an increase in the number of articles published was observed, but only a few were published in high-impact journals.

A systematic review published in 2018 by the Cochrane group evaluated the outcome of studies published in different scientific meetings and pointed out that a follow-up of 48 months or more is necessary to ensure a low risk of excluding manuscripts due to insufficient follow-up time.[5] However, despite a 6-year follow-up, some studies submitted in 2015 are still likely to be published. Since Google Scholar and PubMed were searched manually, some published works may not have been identified.

The search in Google Scholar, a methodology also employed in other studies,[5–7] allowed a significant number of articles to be added. Most of the Latin American journals are not indexed in any of the major databases.[8]

As was seen in other studies, oral presentations generated more publications than posters.[4,5,9] Randomised clinical studies (RCTs) and basic science studies have better chances of being published. Even so, only 5 RCTs were found (data not shown), and therefore they were not analysed separately.[5]

There are more journals now than 20 years ago, so the odds of getting published are higher. In addition, 16% of all the articles were published in *Reumatología Clínica*, which did not exist in 2000.

Another limitation is that the ACOR is held on an annual basis, so a thorough analysis of all the congresses in the period might have provided more accurate data.

In articles that examine the evolution of abstracts presented at scientific congresses, the average number of published studies is 39% if they are in English. However, the average is only 15.6% when it comes to Spanish.[5] There is a scarcity of information about the publication rate of originally Spanish-written abstracts presented at Latin American congresses of other medical disciplines.[10–14]

To our best knowledge, there is no information about the publication rates of other Rheumatology congresses in Latin America.

We hope that future works will provide data about the reality of other Latin American countries.

Finally, another limitation of this study is that the number of unpublished studies submitted for publication is unknown and the quality of the manuscripts has not been analysed.[15]

Writing in English may have been a limitation for the researchers, given that more than 50% of the papers were published in journals that accept manuscripts written in Spanish. In conclusion, the number of abstracts submitted to the ACOR and subsequently published has increased 3–4-fold since 2000, but the results are still far from optimal: more than one third are not found in PubMed, and only a few appear in the most prestigious scientific journals.

Authors' contributions

Conceptualization and methodology: LA, MPP and GS.
Investigation data: LA, MPP and GS.
Funding acquisition N/A.
Curation, validation, project administration and supervision: LA, MPP and GS.
Software: N/A.
Resources: LA, MPP, GS, EMK.
Formal analysis: LA, MPP, GS, EMK.
Writing-original draft preparation: LA, MPP, GS, EMK.
Visualisation, writing-reviewing and editing: All the authors wrote the article, approved the final manuscript as submitted, and agreed to be accountable for all aspects of the work.

Compliance with ethical standards

Since this article does not contain any studies with human participants performed by any of the authors, and the information analysed was in the public domain, authorisation from the Ethics Committee was not requested.

Availability of data and material

Not applicable for that section.

Code availability

Not applicable for that section.

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Conflict of interest

The authors declare that they have no conflict of interest.

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