

Status of high-impact scientific publishing in nursing in Latin America

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Abstract

INTRODUCTION: The aim of this study was to analyze the situation of high-impact scientific publication in nursing in Latin America between 2003 and 2024

OBJECTIVES: Determine Status of high-impact scientific publishing in nursing.

METHODS: The method quantified scientific productivity using bibliometric data.

RESULTS: A total of 298 Scopus documents were selected for the study based on relevance and English keywords (scientific AND publishing, publication AND nursing). The largest substantial growth in scientific production occurred between 2019 and 2023 (n=112; 37.6%), with Brazil as the most prominent country (n=250 publications; 83.9%). The source Revista Brasileira de Enfermagem presented 33 publications, and Marziale, M.H.P. was the most cited author (103 citations; 4 papers). Most of these papers were scientific papers (85%) in the area of nursing (61%) and medicine (20%). It is concluded that the thematic diversity, authorship, sources and resources have increased, with respect to high impact scientific publication in nursing in Latin America, which allows a broader characterization of scientific production in the region according to its impacts, visibility and importance.

CONCLUSION: Thus, this bibliometric analysis provides a framework for future research documenting a key support that aspires to transform Latin American society into a more just, free and healthy state.

Keywords: scientific publication, research, nursing, bibliometric.

Received on 12 December 2023, accepted on 10 April 2024, published on 23 April 2024

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doi: 10.4108/eetpht.10.5705

1. Introduction

Research is a conscious and methodical procedure that validates previous knowledge and generates new information; it requires planning, organization and perseverance to achieve the goal of building a body of knowledge for a discipline (1) (2). In that order of ideas, the development of research skills and competencies is of utmost importance in university spaces, since it is often

here where students are introduced to the scientific world for the first time and the professor has the power to motivate students to pursue research as a professional career (3).

On the other hand, researchers are already commonplace in the nursing field, and some authors state that, systematic research methodologies in nursing practice have evolved over the last 30 years (4) (5) (6). Consequently, there has been an increase in the number of studies and research projects conducted by and for nurses due to two factors: the

need in health care for professionals who can provide evidence-based care and the dedication of educational institutions to train professionals who can manage and produce knowledge (7) (8) (9).

Coupled with this, it is crucial that educational environments foster critical thinking to help future nurses develop their theoretical and practical skills, including research. Because nursing is a profession that has far-reaching societal implications and a moral and ethical obligation to continually expand its knowledge base in the interest of providing patient safety and quality care; as a result, professionals are showing their commitment to strengthen the scientific base of the field by investing more resources in nursing research; all for the benefit of the public's health and well-being.

Therefore, nursing research is essential to make a difference in the field and influence the evolution of healthcare, as scientific knowledge is vital for the advancement of nursing. Thus, knowing the research projects of the nursing professional community allows one to see where updated information is needed, which in turn can lead to improved protocols in all disciplines.

In this regard, research on high impact scientific publication in nursing in Latin America has increased during the last decades, but this is a really expanded trend, therefore is important to continue the study of the field. Therefore, it is crucial to know where each country is in relation to the rest of the region and how to better promote nursing science through policies, which can be achieved by analyzing Published papers based on their trends and identifying distinctive characteristics. In any case, with the use of bibliometrics, which is the study of written works and other academic documents, researchers are able to track the growth of knowledge and determine the relative value of different publications.

Therefore, to be useful for scientific background recognition, databases need accurate study data collection capabilities. Consequently, bibliometric indicators are defined as measures that quantify the amount of literature on a given topic or set of related topics (10).

Likewise, it is crucial to collect data on high impact scientific publication in nursing in Latin America, using a bibliometric framework in order to investigate and understand. Among the indicators evaluated, the year of publication of the document, country of origin, subject, type, institution and authors are considered. To this end, the following research objective is proposed: to analyze the situation of high impact scientific publication in nursing in Latin America between 2003 and 2024.

2. Methodology

Bibliometric analysis was used to evaluate the present dataset on high-impact scientific research publications in nursing in Latin America. Consequently, bibliometrics played a key role in facilitating data collection for the study. Also, the search was conducted from 2003 to 2024 using Scopus, a recognized database that indexes scholarly

papers from around the world. There were also employed other complementary quantitative proceedings. Finally, minor qualitative techniques were used aimed to synthesized main ideas within sources.

Boolean search phrases were used to refine the research focus, including: scientific AND publication, publication AND nursing. This procedure resulted in 403 academic papers. However, 298 papers were selected after data collection and cleaning. In addition, data filtering also included the following additional exclusion criteria: (1) studies conducted before 2003 or after 2024, (2) duplicate publications, (3) publications that were not from Latin American countries, and (4) studies that were not related to the present research.

On the other hand, 298 papers were evaluated for their overall high impact contribution to nursing in Latin America, using bibliometric criteria. Likewise, the date of publication, authors and journals, country of origin, type of file, academic field and institutions of affiliation were taken into account. In addition, data were processed and analyzed with Excel, and descriptive statistics and count data were used, as well as VOSviewer V_1.6.19 which allowed users to create keyword co-occurrence maps.

3. Results

This bibliometric study covered research papers published in journals between 2003 and 2024. In this analysis of Latin American nursing scientific publications with a high impact factor, a total of 298 documents were chosen for inclusion. Also, Figure 1 shows the latest international publications indexed in Scopus. In addition, the graph clearly shows that the annual publication rate grew from 2019 to 2023, with an increase of 112 academic papers, or 37.6% of all publications worldwide. This results are coincidental to the ones found in similar previous papers.

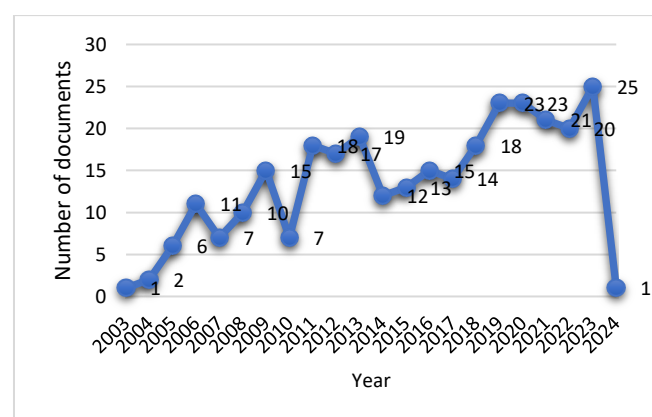
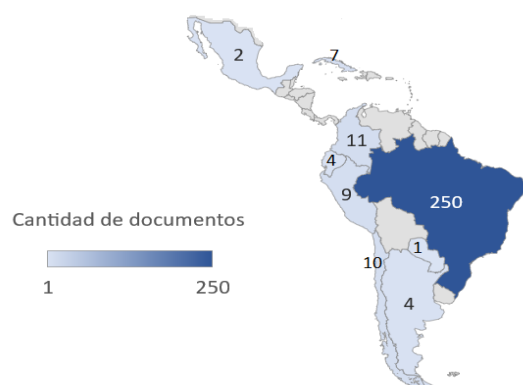


Figure 1. Documents published by year. Source: Scopus data (2024)

Figure 2 shows the publications considered together with their nations of origin. The study focused exclusively on Latin American countries that have made notable contributions in this field. Thus, three of the main countries in this selected geographical area in terms of scientific production are Brazil (83.9%), Colombia (3.7%) and Chile

(3.4%). Another interesting fact is that 51.7% of the papers published were in English, while only 39.6% were in Portuguese and 8.7% in Spanish.



País	Brasil	Colombia	Chile	Perú	Cuba	Argentina	Ecuador	México	Paraguay
Cantidad	250	11	10	9	7	4	4	2	1
%	83.9%	3.7%	3.4%	3.0%	2.3%	1.3%	1.3%	0.7%	0.3%

Figure 2. Publication of documents by country. Source: Scopus data (2024).

This analysis is based on the work of 70 academic sources and publications. The data used in this research can be found in Table 1, which provides a brief ABSTRACT. The table shows that, of all the journals, Revista Brasileira de Enfermagem published the most papers (n=33). Followed by Online Brazilian Journal of Nursing (n=26) and Texto E Contexto Enfermagem (n=24). Likewise, these journals are among the best considered in their disciplines according to their impact factors.

Table 1. Publication of documents by source or journal.

Source or Journal	Number of documents	Source or Journal	Number of documents	Source or Journal	Number of documents
Brazilian Journal of Nursing Online	33	BMJ Open	4	Medicine	2
Brazilian Journal of Nursing	26	Culture of Care	4	Cuban Journal of Higher Secondary Education	2
Texto E Contexto Enfermagem	24	Nursing Research and Education	4	Cuban Journal of Information in Health Sciences	2
Da Escola de Enfermagem Journal	21	Cuidarte Journal	4	Salud Science and Technology	2
Acta Paulista de Enfermagem	20	Journal Gaúcha de Enfermagem	4	Academic Journal of Interdisciplinary Studies	1
Latin American Journal of Enfermagem	18	Science And Collective Health	3	Adolescence and Health	1
Enfermagem Journal	16	Nursing Index	3	Advances In Intelligent Systems and Computing	1
Cuban Nursing Journal	13	Baiana de Enfermagem journal	3	American Journal of Infection Control	1
Global Nursing	12	Brazilian Journal of Occupational	3	American Journal of	1

		Medicine (Revista Brasileira de Medicina do Trabalho)		Pharmaceutical Education	
Journal Gaúcha de Enfermagem EENF UFRGS	10	Acta Scientiarum Health Sciences	2	Archives of Medical Research	1
Science and Nursing	6	Data and Metadata	2	Brazilian Archives of Cardiology	1
Aquichan	5	Medical Education	2	Indefinite	33
Journal of Enfermagem Reference	5	Nursing Horizon	2	Total journals	70

Source: Scopus data (2024)

Furthermore, academics from more than 133 different universities have collaborated in these 298 papers. The Universidade de São Paulo stands out among the universities that have produced the most papers during the period analyzed, with fifty-two, as shown in Figure 3. The Universidade Federal de Santa Catarina is in second place with 35 published papers and the Universidade Federal Fluminense is in third place, with eighteen publications.

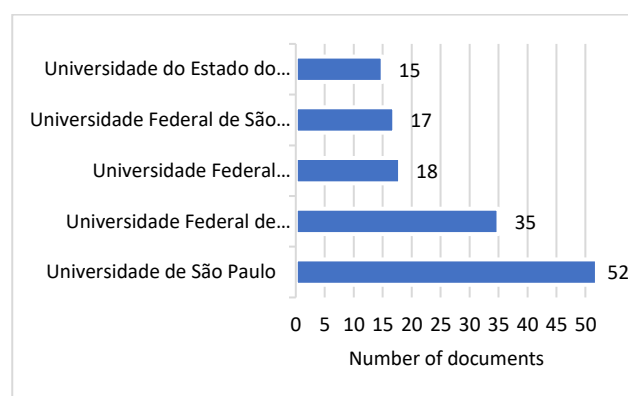


Figure 3. Documents published by institution. Source: Scopus data (2024).

The academic papers chosen represent the combined efforts of 139 authors. Table 2 shows that, of all the authors Marziale, M.H.P. received the most citations (103; n=4 papers). Followed by Meirelles, B.H.S. and Erdmann, A.L. with six and four publications respectively and 64 citations each. The third position goes to Padilha, M.I. (n=3; 37 citations).

Table 2. Published papers by author

By author	Quantity	Total citations	By author	Quantity	Total citations
Meirelles, B.H.S.	6	64	Sanna, M.C.	4	7
Neves, V.R.	5	8	Santos, V.E.P.	4	11
of Lima, D.V.M.	5	3	Favero, L.	3	21

Backes, V.M.S.	4	23	Lino, M.M.	3	10
Canever, B.P.	4	23	Matsuda, L.M.	3	12
Erdmann, A.L.	4	64	Padilha, M.I.	3	37
Lacerda, M.R.	4	24	Paiva, E.D.	3	9
Marziale, M.H.P.	4	103	da Nóbrega, M.M.L.	3	16

Source: Scopus data (2024)

Figure 4 presents a breakdown, from 2003 to 2024, of academic work on high-impact scientific publication in nursing in Latin America. Sixty-one percent of the total increase in scientific knowledge on this topic comes from nursing, with the next highest contributors coming from the fields of medicine (20%) and social sciences (6%). Similarly, when looking at the total production broken down by type of document, Scientific Papers account for 85% of the total, while papers only account for 8%, books 4% and book chapters 2%.

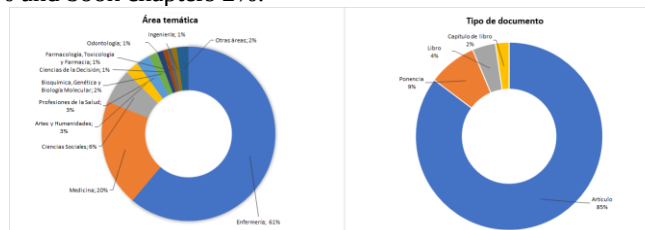


Figure 4. Publication of documents by thematic area and type. Source: Scopus data (2024).

Figure 5 shows the results of the terms present in the abstracts, keyword lists and document titles that were considered. To further facilitate the examination of groups of terms related to particular tones, VOSviewer uses color to represent the strength of the relationships between concepts.

- Red cluster. "nursing" (n=86 occurrences), clusters the following words: nursing research, publication, periodicals as subject, bibliometrics, knowledge, statistics, bibliographic database, scientific and technical publication, evidence-based nursing.
- Blue cluster. "publication" (n=47 occurrences), groups the following words: nursing, education, teaching, human experiment, scientific literature, nursing education, statistics, and numerical data.
- Green cluster. "review" (n=44 occurrences), groups the following words: procedures, nursing care, healthcare personnel, neoplasms, methodology, organization and management, qualitative research.
- Yellow cluster. "medline" (n=23 occurrences), groups the following words: scopus, systematic review, web of science, language, medical literature and patient safety.

As can be seen, most of the most frequent search terms originate from this topic, as shown in the grouping.

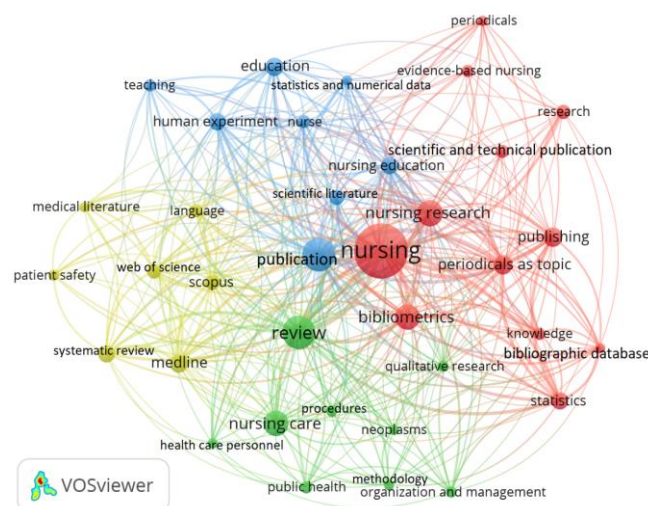


Figure 5. Keyword Co-occurrence Map. Source: Results in VOSviewer (2024).

4. Discussion

The time period covered by this analysis is from 2003 to 2024. According to the data, the highest number of high impact scientific papers in nursing in Latin America were published between 2019-2023. In this study, the literature from Latin American countries on nursing-related topics was examined and analyzed. According to several sources, it states that one of the many indicators used to evaluate the scientific production of a region is the number and quality of papers published in international peer-reviewed journals. Similarly, other studies agree that the high volume of academic papers published on nursing worldwide is a reflection of the value placed on publication within the nursing profession.

For their part, several sources state that in all fields, including health, scientific journals are the main vehicle for the dissemination of new knowledge; given that the purpose of these publications is to provide verified research findings of interest and importance, being relevant to evaluate their visibility, impact and quality. However, the expansion of Latin American research production faces a number of challenges, this may affect aspects such as the ability of health professionals to maintain the safety of their patients, the frequency with which professionals update their practices, the number of students completing their graduate studies and the overall visibility and progress of the discipline.

Likewise, many investigations agrees that the majority of nursing researchers in this region are members of universities, consequently, it seems reasonable that the Academy should promote and provide guidance and instruction in research methods and techniques to both undergraduate and graduate students, in order to institute refresher courses in research and encourage specialization in certain areas of knowledge that will improve professional practice. Also, according to various sources,

knowing the research efforts of the nursing community allows establishing information needs, which in turn can lead to improved protocols in all disciplines.

In addition, there is evidence that the quality of nursing practice is the primary objective of nursing research, making it an essential activity for health professionals. Likewise, it can be agreed that research is an important activity in many universities in the country, which is a challenge to be faced, as it should reflect the nature of their publications, accelerate development and increase methodological rigor to improve the quality of research and indexing of Latin American journals in high-impact databases.

In general, it is essential for nurses to participate in research, as it is an integral part of their work. Thus, the term "nursing research" refers to studies conducted by nurses in order to improve their professional practice (11) (12). Likewise, research that involves nursing professions and is carried out by diverse work teams with the aim of solving common research problems is known as interdisciplinary research, which includes educational, community and clinical (13).

5. Conclusion

According to the stated objective of the study, the number of research conducted on high impact scientific publication in nursing in Latin America increased from 2003 to 2024. According to the bibliometric analysis of all works indexed by Scopus indicates an increase of 37.6% (n=112) from 2019 to 2023. Also, Brazil has the highest production rate (83.9%, n=250) and the highest percentage of English-language publications (51.7%, n=154) among the countries studied. In addition, the author Marziale, M.H.P. was cited 103 times, and the most relevant source was *Revista Brasileira De Enfermagem*, which published 33 academic papers. In addition, 85% of the scientific papers were scientific papers coming from the field of nursing 61% and 20% from the field of medicine. The VOSviewer keyword analysis revealed 86 occurrences of the term "nursing". In addition, the terms "publication", "review" and "medline" deserve consideration due to their relevance in the selected studies.

On the other hand, the research of 298 documents shows that there are significant differences between countries in the region; however, when it comes to the scientific production of Latin American nursing, Brazil stands out as the regional leader. Consequently, it is imperative that undergraduate nursing programs emphasize research methodology and other courses that help professionals integrate the information acquired during their formal training.

Finally, it is concluded that the thematic diversity, authorship, sources and available resources have been increasing with respect to scientific publication in nursing in Latin America, allowing a more complete picture of the scientific production of the region in terms of impact, visibility and relevance. Thus, this bibliometric study

provides a basis for future studies offering evidence-based support that takes a critical approach and aims to achieve social justice, freedom and health in Latin America.

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