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Community participation in the Latin American context: Bibliometric Analysis

Participación de la comunidad en el contexto latinoamericano: Análisis Bibliométrico

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ABSTRACT

Introduction: community participation and outreach constitute one of the key work tools for each science. Despite the existence of previous studies on this topic, it is necessary to have an overview of the current state of knowledge

Objective: characterizes the scientific publications grouped in Scopus regarding community participation in the Latin American context

Method: a bibliometric study was developed. 5 832 publications were analyzed as the research universe. Bibliometric indicators were applied from the Scopus database and the Scival tool.

Results: Articles published in 2022 predominated with 988 investigations (16,94 %). The thematic areas of social sciences stood out (2,639 investigations; 45,25 %). The relationship between the different thematic areas was mostly heterogeneous, with greater participation from the medical sciences. Articles published in research article format stood out with 4,196 investigations, equivalent to 71,94 %. The largest number of articles was published in journals located in quartile 1 (Q1) with 2,407 investigations (41,27 %). The researches with authors from the United States (4 933 articles; 84,58 %) and Canada (885 works; 15,17 %) stood out.

Conclusions: scientific production on community participation in the Latin American context was characterized by gradual growth. In turn, in correlation with a heterogeneous behavior of the branches of sciences involved in scientific activity. The center of the research responds to original articles located in the countries with the highest rate of scientific activity.

Keywords: Bibliometrics; Community Participation; Scientific Production.

RESUMEN

Introducción: la participación y proyección comunitaria constituye una de las herramientas claves de trabajo para cada ciencia. A pesar de la existencia de estudios previos sobre este tema, es necesario contar con una visión general del estado actual del conocimiento.

Objetivo: caracterizar las publicaciones científicas agrupadas en Scopus referente a participación comunitaria en el contexto latinoamericano.

Método: Se desarrolló un estudio bibliométrico. Se analizaron 5 832 publicaciones como universo de la investigación. Se aplicaron indicadores bibliométricos a partir de la base de datos Scopus y la herramienta Scival.

Resultados: Predominaron los artículos publicados en el año 2022 con 988 investigaciones (16,94 %). Sobresalió las áreas temáticas de las ciencias sociales (2 639 investigaciones; 45,25 %). La relación entre las distintas áreas temáticas fue heterogénea en su mayoría, con mayor participación de las ciencias médicas. Destacaron artículos publicados en formato de artículos de investigación con 4 196 investigaciones, equivalentes a un 71,94 %.

El mayor número de artículos fue publicado en revistas ubicadas en el cuartil 1 (Q1) con 2 407 investigaciones (41,27 %). Sobresalieron las investigaciones con autores provenientes de Estados Unidos (4 933 artículos; 84,58 %) y Canadá (885 trabajos; 15,17 %).

Conclusiones: la producción científica sobre participación comunitaria en el contexto latinoamericano estuvo caracterizada por un crecimiento paulatino. A su vez, en correlación con un comportamiento heterogéneo de las ramas de las ciencias implicadas en la actividad científicas. El centro de las investigaciones responde a artículos originales ubicados en los países con mayor índice de actividad científica.

Palabras clave: Bibliometría; Participación Comunitaria; Producción Científica.

INTRODUCTION

The community is the main environment and scenario where man develops and interacts with his fellow men. In this sense, the study and analysis of the behavior of communities, their main conditions, risk factors, and even trends in the area of research are key elements to enrich the work that can be done in them.^(1,2) In this way, its growth and development is further encouraged.⁽³⁾

The community is defined as a group of people with a close relationship in constant exchange with the environment. The influence of the environment and the surroundings in general on the community is extrapolated from this concept. This influence can be measurable and, in turn, modifiable based on the risk factors that affect the different social spheres (economic, health, education, among others) in which the community is involved.⁽⁴⁾ In this sense, authors such as López Ruiz et al.⁽⁵⁾ recognize and emphasize the importance of the active participation of the community and the organizations involved in dealing with these situations.⁽²⁾

In 1978, the Ama Ata Conference held by the World Health Organization (WHO) recognized community participation and its multisectoral nature for the positive development of the community. In turn, the Ottawa Charter supports this criterion by highlighting community participation as an essential link in the development of health care at the primary level.⁽⁶⁾

The diverse nature of the community has allowed it to be present in each of the branches of science. At the same time, it has become an indissoluble element in the application strategies, so much so that today it is considered as an indicator of the scientific projection of each branch. In this sense, health sciences acquire greater diversification and application in this context. The importance of the community in the eradication of risk factors and decision making for prevention and health promotion is recognized.⁽⁷⁾ Aspects that support the daily work of the family physician and nurse.

In the Latin American context, community integration and participation is one of the indispensable pillars for the development strategies applied in the region. Barrios Barrios et al.⁽⁸⁾ recognizes the participation and involvement of the community and the family in general as a fundamental cell of citizen education in the generation of an adequate organizational climate in Colombia. On the other hand, other studies, such as that of the authors Capella Palacios et al.⁽⁹⁾ and Calle Roldán et al.⁽¹⁰⁾ highlight the participation of the Latin American community in the prevention and management of the psychological sequelae generated by COVID-19 in its members and how to develop strategies to implement and improve a quality maternal and child care program in Ecuador, respectively.

Bibliometric approach studies allow the analysis and behavior of scientific production in a given area of knowledge. Their diverse character and varied application make them feasible for any science or sector. They highlight the topics with the highest incidence in the scientific community while providing solutions or methods to enrich those with less scientific activity.⁽¹¹⁾ Regarding this criterion, previous studies have analyzed community participation from a bibliometric approach but based on specific areas from the university context, in health and education.^(12,13,14)

Community participation and outreach is one of the key working tools for each science.⁽¹⁵⁾ Despite the existence of previous studies on this topic, it is necessary to have an overview of the current state of knowledge.^(16,17) For this reason, the present study was developed with the objective of characterizing the scientific publications grouped in Scopus referring to community participation in the Latin American context.

METHOD

A bibliometric, observational and retrospective study was developed on the articles published related to the topic of community participation published in Scopus between 2013 and 2022, applied to the Latin American context. It was conducted on the basis of the methodology defined in the study by Araya-Pizarro et al.⁽¹²⁾

A total of 5 832 publications were studied as the universe of the research; we worked with the entire universe so no sampling techniques were required. The bibliometric indicators analyzed included:

- Number of documents published (Nodoc)
- Years of publication: it responds to the behavior of published articles according to the time of publication of the article.

- Most productive authors and institutions: corresponds to the signatories and organizations with the greatest scientific contribution in the research area.
- Thematic areas and topics: corresponds to the areas and topics defined with Scopus according to the focus of each research.
- Most productive countries: corresponds to the authors' geographical origin
- Scientific journals: corresponds to the journals in which the analyzed articles were published.
- Quartiles of journals: this corresponds to the distribution of articles according to the scope of the journals based on the classification proposed by CiteScore.
- Type of document: it responds to the publication modality of the articles analyzed.
- Concurrence of terms: relation of the articles based on the terms proposed in each one.

The following search strategy was used for data collection: TITLE-ABS-KEY (“university” OR “community engagement”) AND TITLE-ABS-KEY (“community engagement” OR “community participation” OR “community involvement” OR “community consultation”) AND PUBYEAR > 2012 AND PUBYEAR < 2023 AND. The content was then filtered for the Latin American context.

The bibliometric indicators were analyzed using the Scopus database and the Scival tool.⁽¹⁸⁾ Descriptive statistics were also applied.

RESULTS

Articles published in the year 2022 predominated with 988 investigations (16,94 %). This year was followed by 2021 and 2020 with 865 (14,83 %) and 740 (12,68 %) articles respectively figure 1.

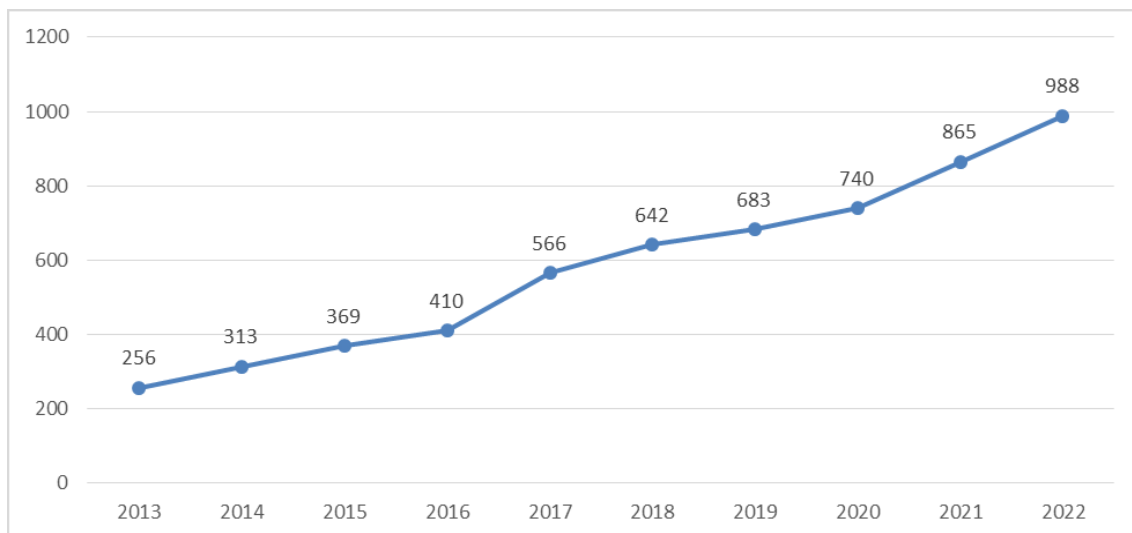


Figure 1. Distribution of articles according to years of publication
Source: Scopus and Scival.

Among the thematic areas with the highest number of published articles were the social sciences (2 639 investigations; 45,25 %), medicine (2 356 articles; 40,39 %) and sciences related to the environment (691 works; 83,05 %). In turn, the relationship between the different thematic areas was heterogeneous for the most part, with greater participation of the medical sciences (medicine, nursing, health professionals, among others: identified in red) figure 2.

Six clusters of concurrence of terms were identified, distributed as follows: Cluster 1 (red) was related to terms referring to COVID-19, pandemic, infections, viral diseases among others. Cluster 2 (green) related to community participation, professional training, health professionals and communication skills. Cluster 3 (blue) related to terms referring to sustainability and relationships in the communities, as well as the behavior of environmental risk factors. Cluster 4 (yellow) covered topics related to the behavior of populations in the communities, gender identity and other related topics. Cluster 5 (purple) was related to health conditions that may affect and influence the community. On the other hand, Cluster 6 (light blue) covered the rest of the topics figure 3 A). The behavior of term density reflected a greater predominance of the terms: female, human and community engagement figure 3 B).

The articles published in research article format stood out with 4 196 research papers, equivalent to 71,94 %. This was followed by book chapters with 523 articles (8,96 %) and review articles with 430 papers, equivalent to 7,37 %. The largest number of articles was published in journals located in quartile 1 (Q1) with 2 407 research papers (41,27 %). This was followed by articles located in Q2 (1454 researches; 24,93 %) and Q3 (637 papers; 10,92 %).

The International Journal of Environmental Research and Public Health stood out with the highest number of investigations, with 93 articles for 1,59 % table 1.

Table 1. Distribution of articles according to 5 most productive journals

| Magazines | Articles | Percentage |
|-------------------------------------------------------------------------|----------|------------|
| International Journal Of Environmental Research And Public Health | 93 | 1,59 |
| Progress In Community Health Partnerships Research Education And Action | 92 | 1,58 |
| Journal Of Higher Education Outreach And Engagement | 77 | 1,32 |
| BMC Public Health | 53 | 0,91 |
| Plos One | 48 | 0,82 |

Source: Scopus and Scival

Research with authors from the United States (4 933 articles; 84,58 %) and Canada (885 papers; 15,17 %) stood out figure 4.

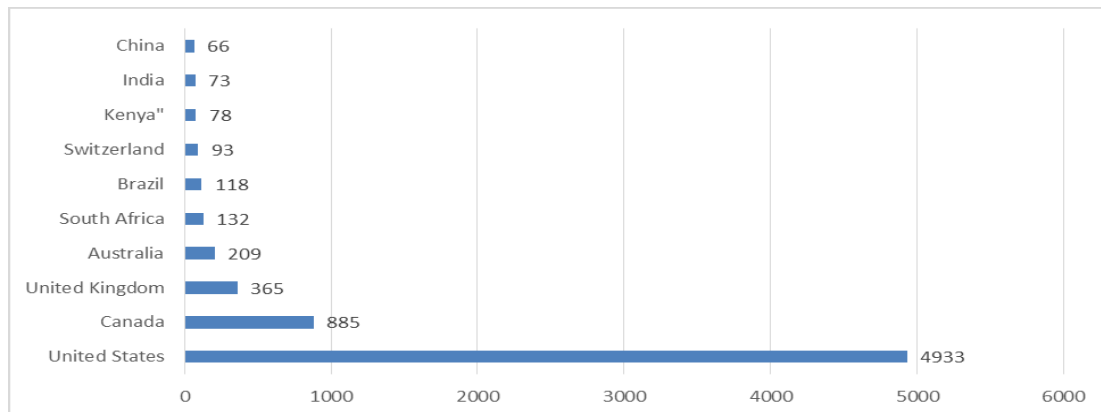


Figure 4. Distribution of articles by country
Source: Scopus and Scival

In terms of the most productive authors, Tucker, J.D. stood out with 24 articles for 0,41 %. In turn, The University of North Carolina at Chapel Hill stood out as the institution with the greatest scientific contribution with 155 research papers for 2,66 % table 2.

Table 2. Distribution of articles according to authors and most productive institutions

| Authors | Nodoc | Percentage |
|-------------------------------------------------|-------|------------|
| Tucker, J.D. | 24 | 0,41 |
| Chung, B. | 22 | 0,38 |
| Cottler, L.B. | 22 | 0,38 |
| Jones, F. | 21 | 0,36 |
| Tang, L. | 20 | 0,34 |
| Institutions | | |
| The University of North Carolina at Chapel Hill | 155 | 2,66 |
| University of Washington | 143 | 2,45 |
| University of Toronto | 128 | 2,19 |
| Johns Hopkins Bloomberg School of Public Health | 121 | 2,07 |
| The University of British Columbia | 117 | 2,01 |

Source: Scopus and Scival

DISCUSSION

The active participation of the community in each of the scenarios of society demands the study and analysis of its dynamics and behavior. Bibliometric research contributes to provide an overview of their behavior.⁽¹⁹⁾

An analysis of the temporal relationship of the articles published shows a gradual and sustained growth over time.⁽²⁰⁾ This behavior may be due to the growing interest of researchers in this field of knowledge and to the importance attributed to the role of the community in social transformations. These results differ from those presented by Estupiñán Ricardo et al.⁽²¹⁾

In relation to the thematic areas, there was evidence of heterogeneous behavior, with the involvement of the different branches of science. However, it is worth noting that the highest incidence was in the social sciences and medicine. These data respond to the fact that, unlike the rest of the sciences, these involve a greater interaction with the community thanks to the multiple projects developed in them. Especially the branches and areas of the medical sciences through the different programs of prevention and health promotion.⁽²²⁾ Such is the case of the research conducted by Calvo Martínez et al.⁽²³⁾ which analyzed the state of adaptation and participation of a community in the application of a guide for health promotion. These data agree with those presented by Cerón Vasquez et al.⁽²⁴⁾ on the other hand, disagrees with those presented by González Parias et al.⁽²⁵⁾

The behavior of the network of concurrence of terms is related to the most researched thematic areas. The clusters with the highest degree of concurrence and strengths (clusters 1, 2 and 3) cover topics related to medical sciences by dealing with aspects such as: infectious diseases, professional training, pandemics and risk factors; an aspect that supports the previous criterion and allows establishing a link between both results. This data is related to those presented by Muyor Rodríguez et al.⁽²⁶⁾

The predominance of original or research articles in the present study responds to the importance and priority attributed to this typology in the editorial management. In turn, it is related to the outstanding thematic area in terms of concurrence, since medical specialties require the generation and updating of results from this type of articles to guarantee quality health care.⁽²⁷⁾ Results that are related to Andrés-Rodríguez et al.⁽²⁸⁾ however, they disagree with those presented by Rodríguez Otero et al.⁽²⁹⁾

One study⁽³⁰⁾ found a predominance of articles published in Q1 journals, followed by publications in Q2 journals, similar to the present study. Borja et al.⁽³¹⁾ presented data contrary to the most productive journals with respect to the authors who signed the present study.

The predominance of countries such as the United States and Canada may be due to the fact that the largest research centers are located in these territories, which in turn have more resources allocated to research processes.⁽³²⁾ Criteria opposed to the results presented by Camargo Barrero et al.⁽³³⁾ Regarding the most productive authors, Araya-Pizarro et al.⁽¹²⁾ presents contrary data regarding the number of articles per author. However, it shows similar results on the most productive institutions.

CONCLUSIONS

Scientific production on community participation in the Latin American context was characterized by a gradual growth. At the same time, in correlation with a heterogeneous behavior of the branches of science involved in scientific activity. The focus of the research is on original articles located in the countries with the highest rate of scientific activity.

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The authors declare that there is no conflict of interest.

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