

## Metrics of articles on pharmacology published in Revista 16 de abril

Eduardo Adiel Landrove-Escalona <sup>1</sup> , Eduardo Antonio Hernández-González <sup>2</sup> , Alejandro Palomino-Cabrera <sup>3</sup> , Daniela Avila-Díaz <sup>2</sup> , Déborah Mitjans-Hernández <sup>2</sup> , Annier Jesús Fajardo-Quesada <sup>4</sup> 

<sup>1</sup> Universidad de Ciencias Médicas de Las Tunas. Facultad de Ciencias Médicas "Dr. Zoilo E. Marinello Vidaurreta". Las Tunas, Cuba.

<sup>2</sup> Universidad de Ciencias Médicas de Pinar del Río. Facultad de Ciencias Médicas "Dr. Ernesto Che Guevara de la Serna". Pinar del Río, Cuba.

<sup>3</sup> Universidad de Ciencias Médicas de La Habana. Facultad de Ciencias Médicas de Artemisa. Filial de Ciencias Médicas "Manuel Piti Fajardo" de San Cristóbal. Artemisa, Cuba.

<sup>4</sup> Universidad de Ciencias Médicas de Granma. Facultad de Ciencias Médicas "Celia Sánchez Manduley". Granma, Cuba.

### ABSTRACT

**Introduction:** pharmacology constitutes an interesting research profile because the search for effective treatments against diseases has been an enormous challenge for the scientific community, both professional and student. **Objective:** to describe some metrics of articles on pharmacology published in Revista 16 de Abril. **Method:** a bibliometric study of observational and descriptive design was carried out, from January 2015 to December 2021. The universe consisted of the 22 articles published on pharmacology in the journal. The typology variable, number of articles per year, language, number of authors, sex of the first author, most productive institutions, number of references, age of references, Price index, citations and number of corrected citations. **Results:** 36.36% of the articles were of the original articles typology. Articles with 2 to 4 authors were more frequent (86.36%) and 63.63% of the first authors were male. An average of almost 19 references per article was found. The Price index ranged between 0.14 and 0.77. 18.18% of the articles received citations where they predominated in the review articles. **Conclusions:** the University of Medical Sciences of Havana led the scientific production, predominating original articles, multiple authorship and the first author was male. Low student scientific production on pharmacology was confirmed, with low citation rates.

**Keywords:** Authorship; bibliometrics; Science; Pharmacology; Publications; Therapy.

The training of new health professionals should be oriented towards the demands of their work profile, in accordance with the population's health needs. Research is considered essential for such training, therefore throughout history, health sciences students have shown a marked interest in research and subsequent publication of the results of their research<sup>1</sup>.

Student scientific publication should be based on awareness of the importance of publication,

development of scientific writing skills, and on a system of evaluation and measurement of scientific production. Regarding this, the accelerated increase of scientific-medical publications, as a means of transmission and institutionalization of science, is disposed to the continuous improvement of scientific journals and their editorial teams, as well as the insertion of these in a greater number of databases, which ensure impact and visibility of the carried out research.

In Cuba, there is an active student scientific movement and every year hundreds of studies go from basic scientific conferences to the national student forum<sup>2</sup>. Approximately 2 % of scientific publications have the participation of at least one student. A great deal of research has been carried out on the subject and from different angles: either the object of study, the journals or the publications resulting from the papers presented at scientific events. Student scientific journals play a crucial role in the publication process of articles by undergraduate authors<sup>3</sup>.

The creation of the Revista 16 de abril 60 years ago as the first Latin American student journal in health sciences made it possible for medical research to reach a significant place for young researchers.



OPEN ACCESS

✉ Corresponding author: Eduardo Adiel Landrove-Escalona.

email: [eduarditolandrove2001@gmail.com](mailto:eduarditolandrove2001@gmail.com)

**Published:** March 16<sup>th</sup>, 2022

**Received:** December 11<sup>th</sup>, 2021; **Accepted:** January 09<sup>th</sup>, 2022

#### Cite as:

Landrove-Escalona EA, Hernández-González EA, Palomino-Cabrera A, Avila-Díaz D, Mitjans-Hernández D, Fajardo-Quesada AJ. Métricas de los artículos sobre farmacología publicados en la Revista 16 de abril. 16 de Abril [Internet]. 2022 [citado: fecha de acceso]; 61(283):e1568. Disponible en: [http://www.rev-16deabril.sld.cu/index.php/16\\_04/article/view/1568](http://www.rev-16deabril.sld.cu/index.php/16_04/article/view/1568)

#### Conflict of interest

The authors declare no conflict of interest.

Supported by the efforts of hundreds of students and professionals from all over the country who, from different disciplines with articles of various types and topics, have positioned the journal among the best of its kind and as an important point of reference when analyzing the behavior of student publications<sup>4</sup>.

It is considered that the main source of interest in publishing among medical science students is given, to a certain extent, by the different subjects they are taught throughout their degree program. Pharmacology is of special interest, since it is based on the study of drug interactions with patients, as well as being the solution to their ailments<sup>5</sup>. Specifically, pharmacological treatments constitute an interesting research profile due to the fact that the search of effective treatments against diseases has been an enormous challenge for the scientific community. Consequently, the present research is developed with the aim of describing some metrics of the articles on pharmacology published in the Revista 16 de abril from January 2015 to December 2021.

**METHOD**

**Type of study:** a bibliometric study of observational, descriptive design was developed, where the scientific production referring to pharmacology, published in the Revista 16 de abril from January 2015 to December 2021, was analyzed.

**Universe and sample:** the universe consisted of the 28 articles published on pharmacology in the Revista 16 de abril from January 2015 to December 2021. The entire universe was studied.

**Variables and data collection:** the following variables were studied: typology, number of articles, year of publication, language, number of authors, sex of the first author, most productive institutions, number of references, age of references, Price index (PI), citations and number of corrected citations (NCC)<sup>6</sup>. The PI is calculated as the quotient between the citations in the articles, which belong to the 5 years prior to the article's receipt and the total number of used citations<sup>7</sup>.

For data collection, on December 21 the journal's web page was accessed, which works in Open Journal System (OJS); the articles are downloaded in PDF format. For this purpose, the portal <http://www.rev16deabrilsld.cu> was accessed through the Infomed network.

On the same date, a search was carried out in Google Scholar, where the title and authors were used to determine the citations of each article.

The NCC is the result of dividing the number of citations received by an article between the time in years that the article has been published. A data collection form was used to collect the variables for each article.

**Statistical processing:** the data were stored in a database and processed using the SPSS 21.0 statistical package. Descriptive statistics were used.

**RESULTS**

Original articles predominated (36,36 %), followed by letters to the editor and review articles with 8 each (Table 1).

Table 1. Distribution according typology of the articles on pharmacology published in the Revista 16 de abril. January 2015-December 2021		
Typology	No.	%
Editorial	2	9,09
Original Article	8	36,36
Case Presentation	1	4,55
Review Article	5	22,73
Letter to the editor	5	22,73
Our professors write	1	4,55
Total	22	100,0

Source: articles downloaded from the journal's website.

The year with the highest number of published articles was 2020 with 7 and those with the lowest number were 2015 and 2016 (Figure 1). Ninety-one point thirty percent of the articles were written in Spanish.

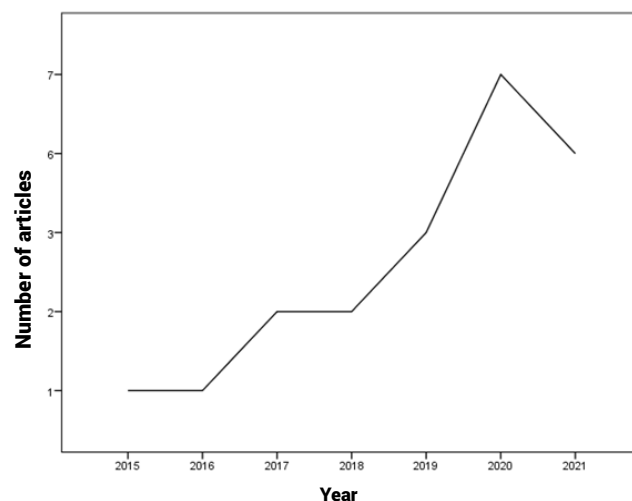


Figure 1. Distribution of the number of articles published per year.

Sixty-three authors were reported in the articles, with a predominance of multiple authorship, where 86,36 % were signed by 2 to 5 authors. The 63,64 % of the articles had a male first author. The articles came from 3 countries and the country with the highest number of signatories was Cuba, representing 96,82 % (Table 2).

Variable	Escale	Frecuency	%
Language	Spanish	21	91,30
	English	1	8,70
Amount of authors	1	2	9,09
	2 to 5	19	86,36
	6	1	4,55
First Author's Sex	Male	14	63,64
	Female	8	36,36
Country	Cuba	61	96,82
	Spain	1	1,59
		1	1,59

The manuscripts came from 11 institutions and the most productive institution was the University of Medical Sciences of Havana and within its faculties the Faculty of Medical Sciences "Manuel Fajardo" with 60 signatories (Table 3).

A total of 412 references were used, with an average of 18,73 references per article, mostly gathered in original reviews (190) and review articles (153). The PI was between 0,14 (Our professors write) and 0,78 (Review article). The largest number of references used were in Spanish (Table 4).

## DISCUSSION

In a study Cala Calviño et al.<sup>8</sup> claim the satisfaction and motivation of medical science students for pharmacology, although they express objective difficulties related to the infrastructure and joint evaluation of the subjects

Clinical Pharmacology and Internal Medicine, which, in their opinion, have a negative impact on the learning process. In this sense, it is considered that student scientific publication could be the way to encourage students to carry out studies where they use their knowledge in joint work with their tutors, since studies on pharmacological treatments require exhaustive supervision and strict compliance with ethical standards. Original articles constitute the basis of publication of any journal, since they make substantial contributions, however, it is important to take into account that other types of articles are vital for scientific communication, as noted by García-Rivero et al.<sup>9</sup> when describing the scientific production of Cuban student journals and showing very favorable results in terms of the number of original articles published, which coincides with the present one.

When comparing the percentages, it can be seen that in the journal Revista 16 de abril there is a low percentage of original articles on the subject, considering this an indicator that should be increased, since it has other sections that bring together research results such as "Review article" and "Letter to the editor".

The increase of articles on a very specific topic is based on several aspects; the study of pharmacological treatments is considered of notable transcendence for a physician's training, they constitute the solution, as long as they are well prescribed, so the articles are aimed at improving the quality of the treatments, although in many cases the adverse reactions of medical prescriptions are reported; the authors consider this type of article as one of the most notable in the field.

The publication of articles in English and by foreign authors, where Spain and Ecuador stand out, is a reflection of the multiple indexations of the journal and therefore of the high rigorousness of its editorial process; likewise, a study shows the collaboration between foreign and foreign students. The authors consider that the predominance of articles in Spanish is to be expected, since this is the language of the journal, the institution and the country where the editorial management is carried out. A greater number of articles published in English would attract more foreign authors to the journal and increase its visibility; a good strategy would be to translate the articles into English.

A bibliometric study of the Revista Estudiantil Universidad Médica Pinareña (Student scientific journal of the University of Medical Sciences of Pinar del Río) in the period 2010-2016<sup>10</sup>, shows that articles published with more than four authors predominated, which coincides with the present one. This type of research requests more than one author due to the rigor that must exist or how complicated they can be as in the case of non-observational studies where the studied variables intervene, thus international multiple authorship is considered vital.

Table 3. Distribution of articles according to most productive institutions		
Most productive institutions	Frecuency	%
University of Medical Sciences of Havana	20	31,75
University of Medical Sciences of Holguín	7	11,1
University of Medical Sciences of Villa Clara	7	11,1
University of Medical Sciences of Havana		
“Manuel Fajardo” Faculty of Medical Sciences	18	28,57
“Finlay Albarrán” Faculty of Medical Sciences	8	12,70
Faculty of Medical Sciences of Artemisa	5	7,94

Table 4. Characterization of the references					
Typology	Amount of references	≤ 5 years	Price Index	References in Spanish	References in English
Editorial	17	10	0,59	9	8
Original Article	190	129	0,68	135	55
Case Presentation	13	10	0,77	6	7
Review Article	153	119	0,78	54	99
Letter to the editor	32	22	0,69	11	21
Our professors write	7	1	0,14	2	5
Total	412	291	0,61*	217	195
*Price Index Average					

The journal Universidad Médica Pinareña shares aspects in common with the journal Revista 16 de abril, such as visibility and impact in the student environment, so making comparisons in terms of the Price index is effective. The University of Medical Sciences of Havana counts with the active participation of the student scientific groups distributed by faculty and it is enhanced by the different student scientific events at different levels reporting very good participation, although the quality of the published articles has been little described by the literature; therefore, it was

expected that the greatest number of articles came from the University of Havana.

An article published in the journal Educación Médica Superior alleges the continuous improvement in the training of physicians at the “Manuel Fajardo” Faculty of Havana, where the students’ research activity was satisfactory, however, a difference of criteria was observed among the professors, since they considered that 30 % of the students fulfilled this academic function moderately or unsatisfactorily. This is reflected in the fact that many of the articles did not have the tutelary

Table 5. Distribution of the most cited articles

Nº	Year	Typology	Title/Author	Citas	NNC
1	2015	Review Article	Ethnopharmacological and antimicrobial activity of the chemical components of medicinal plants used in Stomatology/ Ibrain Enrique Corrales Reyes	8	1,6
2	2017	Review Article	Stem cells: a novel treatment for periodontitis/ Yeilyn de la Caridad López Conde, Ailed Cabello Rojo, Daniela Mérida Argüéz, Mildred Martín Pinto, Jorge Fernández Cámara	4	1,33
3	2020	Editorial	Chloroquine and Hydroxychloroquine in the treatment of COVID-19/ Omar Luis Hernández-García, Elia de la Caridad Rodríguez-Venegas	4	4
4	2020	Letter to the editor	COVID-19. Therapeutic alternatives/Adrián Alejandro Vitón-Castillo, Elia de la Caridad Rodríguez-Venegas	4	4

presence of the professors<sup>11</sup>, so it is considered that the research collaboration between the professor and the student should be improved.

In publications, multiple authorship is becoming increasingly common; an analysis of collaboration patterns by Piedra Salomón, et al.<sup>9</sup> shows that collaboration in medical sciences is established as a growing need. Collaboration has a positive influence on the visibility of research, since authors from different areas, institutions or countries extend the public or readers, as long as it is true and well justified through Credit's Taxonomy, to avoid the appearance of false authors.

The publications of Cuban origin have certain visibility in the field of international publication and this is the fact that bases the acquisition of non-foreign authors<sup>13</sup>, although in this study there is a slight predominance of international signatories, however another perspective of the Cuban Journal of Pediatrics in the period 2012-2018 reports Cuba as the leading country in scientific production<sup>14</sup>, a result that was expected because it is the country where the journal is based and the institution that sponsors it.

The PI in a study on oncology published in Cuban student journals was 0,66 and in original articles 0,65<sup>15</sup>, these values were higher than those found in the present one; the authors consider this as an aspect that should be improved. The PI is used in the study of the age of the references, where higher values represent greater timeliness. In medical sciences, due to their constant progress, it is necessary to use the most up-to-date scientific evidence.

With respect to the language of the references, a study carried out by Flores-Fernández, et al.<sup>16</sup> reported

that 85 % of the references used were in English; these results do not agree with the present study; this fact may be based on factors such as access to the articles, the authors' own knowledge in the search of information, and pharmacological studies request a wide range of costs typical of developed countries, most of which are English-speaking, although it should be considered that this aspect is positive in the present study (47,33 %).

The real challenge for editorial teams in published science is to reach their readers and be understood by them. The so-called NCC is a corrector used to measure the impact of a publication based on the number of citations received by it, this depends on the dissemination that this research has presented since its publication, so the longer it has been published, the greater the probability of being cited. The low number of cited articles may be due to different factors; the scarce dissemination of the publications by the journals and the recent creation of the largest number of journals included in the research; considering that as part of the editorial process, the dissemination strategies should be improved, and thus provide greater visibility to the published science<sup>17</sup>.

The results point out the need to focus attention on the metric variables in order to achieve a better positioning of the journal and the science produced in this field.

## CONCLUSIONS

The University of Medical Sciences of Havana led the scientific production, with a predominance of original articles, multiple authorship and male first authors. A

low student scientific production on pharmacology was confirmed, with low citation indexes.

## AUTHORSHIP

**Eduardo Adiel Landrove-Escalona:** conceptualization; investigation; data curation; validation; formal analysis; visualization; writing-original draft; writing-review and final edition.

**Eduardo Antonio Hernández-González:** investigation; data curation; validation; formal analysis; methodology; supervision; writing-review and final edition.

**Alejandro Palomino-Cabrera:** investigation; data curation; validation; formal analysis; methodology;

supervision; writing-review and final edition.

**Daniela Avila-Díaz:** investigation; data curation; validation; methodology; supervision; writing-review and final edition.

**Déborah Mitjans-Hernández:** investigation; data curation; validation; methodology; supervision; writing-review and final edition.

**Annier Jesús Fajardo-Quesada:** investigation; data curation; validation; methodology; supervision; writing-review and final edition.

## FUNDING

The authors did not receive funding for this article.

## BIBLIOGRAPHIC REFERENCES

1. Patatán Mendoza S, Bueno Brito C, Delgado Delgado J, Dávila Hernández G, Rojas Gil N. Estrategia didáctica basada en el papel del mentor para desarrollar las competencias de farmacología en estudiantes de enfermería, en escenarios reales. Dilemas contemp. Educ política valores [Internet]. 2020 [citado 10/12/2021]; 8(SPE5). Disponible en: [http://www.scielo.org.mx/scielo.php?pid=S2007-78902020000800011&script=sci\\_arttext](http://www.scielo.org.mx/scielo.php?pid=S2007-78902020000800011&script=sci_arttext)
2. Corrales-Reyes IE, Fornaris-Cedeño Y, Dorta-Contreras AJ. Es necesario estimular la producción científica estudiantil cubana. Rev. cuba. inf. cienc. salud [Internet]. 2018 [citado 11/12/2021]; 29(1):109-111. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S2307-21132018000100009&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2307-21132018000100009&lng=es).
3. González-Argote J, Vitón-Castillo AA. Lecciones aprendidas y por aprender sobre la publicación científica estudiantil cubana. Rev Cub Med Mil [Internet]. 2021 Jun [citado 11/12/2021]; 50(2):e990. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0138-65572021000200036&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0138-65572021000200036&lng=es).
4. Hernández-García F, Robaina-Castillo JI, Martínez-Riverón D. La Revista 16 de abril, su papel en el desarrollo del movimiento científico estudiantil universitario de las Ciencias Médicas en Cuba. 16 de Abril [Internet]. 2020 [citado 10/12/2021]; 59(278). Disponible en: [http://www.rev16deabrilsld.cu/index.php/16\\_04/article/view/730](http://www.rev16deabrilsld.cu/index.php/16_04/article/view/730).
5. Sumina Baptista M. Plan de estudio de asignatura farmacología [Internet]. 2021 [citado 10/12/2021]. Disponible en: <http://ddigital.umss.edu.bo:8080/jspui/handle/123456789/27145>
6. Arias FG. Obsolescencia de las referencias citadas: un mito académico persistente en la investigación universitaria venezolana. e-Ciencias de la Información [Internet]. 2017 [citado 11/12/2021]; 7(1):78-90. Disponible en: <http://dx.doi.org/10.15517/eci.v7i1.26075>.
7. Aleixandre-Benavent R, González de Dios J, Castelló-Cogollos L, Navarro-Molina C, Alonso-Arroyo A, Vidal-Infer A et al. Bibliometría e indicadores de actividad científica (III). Indicadores de impacto basados en las citas. Acta Pediatr Esp [Internet]. 2017 [citado 11/12/2021]; 75(5-6):e75-e84. Disponible en: <https://medes.com/publication/123506>.
8. Cala Calviño L, Álvarez González RM, Ramos Hernández L, Martínez Novellas Y, Mendo Alcolea N, Labadié Fernández S. Clinical Pharmacology learning according to the student's perception. EDU-MECENTRO [Internet]. 2017 Dic [citado 11/12/2021]; 9(4):49-65. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S2077-28742017000400005&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2077-28742017000400005&lng=es).
9. García-Rivero AA, González-Argote J, Acosta-Batista C. Panorama de las revistas estudiantiles cubanas 2005-2015. Primera parte: análisis bibliométrico. Educ médica [Internet]. 2018 [citado 11/12/2021]; 19(Suppl 2):147-52. Disponible en: <http://dx.doi.org/10.1016/j.edumed.2016.12.003>
10. Vitón Castillo AA, Casabella Martínez S, Germán Flores L, García Villacampa G, Bravo Malagón Y. Análisis bibliométrico de la revista Universidad Médica Pinareña, 2014-2017. Universidad Médica Pinareña [Internet]. 2018 [citado 11/12/2021]; 14(3):238-247. Disponible en: <http://revgaleno.sld.cu/index.php/ump/rt/printer-friendly/293/0>
11. Hernández-García L, Monagas-Docasal M, Martínez-Pedregal A. La mejora continua y la formación de médicos en la Facultad "Manuel Fajardo" de La Habana. Educación Médica Superior [Internet]. 2021 [citado 11/12/2021]; 35(2). Disponible en: <http://ems.sld.cu/index.php/ems/article/view/2372>
12. Piedra-Salomón Y, Ponjuán-Dante G. Análisis de los patrones de colaboración del Programa de Doctorado en Documentación e Información Científica. Revista Cubana de Información en Ciencias de la Salud [Internet]. 2021 [citado 11/12/2021]; 32(1). Disponible en: <http://rcics.sld.cu/index.php/acimed/article/view/1797>.
13. Monzón Pérez ME, Sánchez-Ferrán T, Oviedo Herrera LC, Viera IC. El

problema científico en artículos de resultado de investigación original publicados en revistas biomédicas cubanas. Rev habanera cienc médicas [Internet]. 2018 [citado 11/12/2021]; 17(2):265–77. Disponible en: <https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=83199>

14.Madero-Durán S, Licea-Jiménez IJ, Martínez-Prince R. Perspectiva métrica en el análisis de los artículos originales de la Revista Cubana de Pediatría. ACIMED [Internet]. 2020 [citado 11/12/2021]; 31(2). Disponible en: <http://www.rcics.sld.cu/index.php/acimed/article/view/1469>

15.Vitón-Castillo A, Dias-Samada RE, Benítez-Rojas L, Rodríguez-Venegas E, Hernández-García O. Producción científica sobre oncología publicada en las revistas estudiantiles cubanas, 2014-2019. Revista Electrónica Dr. Zoilo E. Marinello Vidaurreta [Internet]. 2020 [citado 11/12/2021]; 45(4). Disponible en: <http://www.revzoilomarinello.sld.cu/index.php/zmv/article/view/2258>

16.Flores-Fernández C, Aguilera-Eguía R, Saldivia-Saldivia AM, Gutiérrez-Parrá V, Pérez-Galdavini VM, Torres-Morera LM. Análisis bibliométrico de la Revista de la Sociedad Española del

Dolor: 2007-2016. Rev Soc Esp Dolor [Internet]. 2018 [citado 11/12/2021]; 25(3):170-177. Disponible en: [https://scielo.isciii.es/scielo.php?pid=S1134-80462018000300170&script=sci\\_arttext&tlng=en](https://scielo.isciii.es/scielo.php?pid=S1134-80462018000300170&script=sci_arttext&tlng=en)

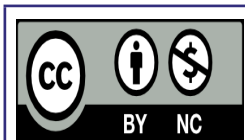
17.Díaz-Rodríguez YL, Torrecilla-Venegas R. Producción científica sobre Medicina Natural y Tradicional en revistas científicas estudiantiles cubanas, 2014-2020. Revista Electrónica Dr. Zoilo E. Marinello Vidaurreta [Internet]. 2021 [citado 11/12/2021]; 46(1). Disponible en: <http://revzoilomarinello.sld.cu/index.php/zmv/article/view/2483>

## Métricas de los artículos sobre farmacología publicados en la Revista 16 de abril

### RESUMEN

**Introducción:** la farmacología constituye un interesante perfil investigativo debido a que la búsqueda de tratamientos eficaces contra las enfermedades ha supuesto un desafío enorme para la comunidad científica tanto profesional como estudiantil. **Objetivo:** describir algunas métricas de los artículos sobre farmacología publicados en la Revista 16 de abril. **Métodos:** se realizó un estudio bibliométrico de diseño observacional y descriptivo, en el periodo de enero del 2015 a diciembre del 2021. El universo estuvo constituido por los 22 artículos publicados sobre farmacología en la revista. Se estudiaron la variable tipología, cantidad de artículos por año, idioma, cantidad de autores, sexo del primer autor, instituciones más productivas, cantidad de referencias, antigüedad de las referencias, índice de Price, citas y número de citas corregidas. **Resultados:** el 36,36 % de los artículos fueron de la tipología artículos originales; más frecuente los artículos de 2 a cuatro autores (86,36 %) y el 63,63 % de los primeros autores eran de sexo masculino. Se encontró una media de casi 19 referencias por artículo. El índice de Price osciló entre 0,14 y 0,77. El 18,18 % de los artículos recibieron citas donde predominaron en los artículos de revisión. **Conclusiones:** la Universidad de Ciencias Médicas de La Habana lideró la producción científica predominando los artículos originales, la autoría múltiple y el primer autor fue masculino. Se confirmó una baja producción científica estudiantil sobre farmacología, con bajos índices de citación.

**Palabras clave:** Autoría; Bibliometría; Ciencia; Farmacología; Publicaciones; Terapéutica.



Este artículo de Revista 16 de Abril está bajo una licencia Creative Commons Atribución-No Comercial 4.0. Esta licencia permite el uso, distribución y reproducción del artículo en cualquier medio, siempre y cuando se otorgue el crédito correspondiente al autor del artículo y al medio en que se publica, en este caso, Revista 16 de Abril.