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Contribución breve

Editorial board inbreeding in Latin American public health journals

La endogamia editorial en revistas latinoamericanas de salud pública

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ABSTRACT

Editorial inbreeding is the publication of research papers by the editor or members of the editorial committee in the journal. An excessive increase in publications by the editorial committee can suggest flaws in the editorial process. The objective of this study was to assess editorial inbreeding in Latin American public health journals and its associated factors. A manual review was carried out of all the original articles published by 16 Latin American public health journals between 2016 and 2019. The analysis variable was the presence of editorial inbreeding. Analytical statistics were carried out between the presence of inbreeding and the indexing. The journals studied published 5517 original manuscripts and short originals, of which 565 (10.2%) had at least one editor as author. There was a higher frequency of inbred manuscripts and greater inbreeding in 2019 among journals belonging to MEDLINE compared to those belonging to SciELO. The number of days from receipt to acceptance is less among inbred authors. The publication of editors in their own journals is frequent in Latin American public health journals and tends to be more frequent in journals indexed in MEDLINE.

Keywords: editorial policies; publications; journal article; authorship (Source: MeSH NLM)

RESUMEN

La endogamia editorial es la publicación de artículos de investigación en una revista por parte de su editor o miembros del comité editorial. Un aumento excesivo de publicaciones por parte del comité editorial, puede sugerir fallas en el proceso editorial. El objetivo de este trabajo es evaluar el grado de endogamia editorial en las revistas de salud pública latinoamericanas, así como factores asociados. Se realizó una revisión manual de todos los artículos originales publicados por 16 revistas latinoamericanas en el área de salud pública entre 2016 y 2019. La variable de análisis fue la presencia de endogamia editorial. Se realizaron estadísticas analíticas entre la presencia de endogamia y la indexación. Las revistas publicaron 5517 manuscritos originales y originales breves, de los cuales 565 (10,2 %) artículos tuvieron al menos un editor como autor. Hubo una mayor frecuencia de manuscritos endogámicos y una mayor endogamia en 2019 entre las revistas pertenecientes a MEDLINE en comparación con las pertenecientes a SciELO. El número de días desde la recepción hasta la aceptación es menor entre los autores endogámicos. La publicación de los editores en sus propias revistas es un hallazgo frecuente en las revistas de salud pública latinoamericanas, tiende a ser más frecuente en las revistas indexadas en MEDLINE.

Palabras clave: políticas editoriales; publicaciones; artículo de revista; autoría.

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Introduction

Scientific journals are the best instrument by which research becomes visible, facilitating the dissemination of new knowledge to target audiences.[1] Since the emergence of the first scientific journals, their basic features such as the types of articles published, peer review and the role of the editor have changed little, making these processes easier with the emergence of the internet and continuous technological developments.[2,3]

One of the most important journal positions is that of the editors, whose activity facilitates most editorial processes, from the launching of the journals to the final decision of acceptance or rejection of a research work.[4] However, with the increase in research and manuscripts, a team of editors who could take on increasingly specific tasks that the editor-in-chief could not do alone became necessary. For editorial committees, journals usually select people who are outstanding in the specific scientific field of the journal and have contributed to knowledge in that area.[5]

The editorial committee of academic journals has the duty to define and promote standards that safeguard ethical conduct in research, promoting integrity, transparency, and honesty in the publication process.[6] Bias in decision-making by the editorial committee could be unfair to the authors, but this may be explained by the experience of the editor in the selection and evaluation rules and the level of specialization of the researcher.[7]

With the high value of research and the growing need to publish, bad editorial practices have been observed, most often in new or local journals.[8] Editorial inbreeding is the publication of research papers by the editor or members of the editorial committee in the journal. While not a bad practice *per se*,[9] an excessive increase in publications by the editorial committee may suggest that the editorial and peer review process is not being carried out in the most adequate way. Inbreeding is particularly evident when the editors belong to a small scientific community, the specific research carried out has limited journals

in which they can publish their contributions, causing an increase in publications in the journals of which they are editor.[10]

Databases do not lend special attention to this problem, because they are thought to be isolated processes; nevertheless, previous studies in other areas of knowledge have shown that the problem could be greater. The correct choice of editors, as custodians of knowledge, could help reduce bias when evaluating and selecting the best manuscripts that contribute to the growth of science and obviate their own benefit.[4]

In Latin America, in general, there is very little research on editorial inbreeding, either in the context of countries or journals. This information is necessary to know and compare the situation in a particular region compared to others with a greater publishing culture. For example, in its own analysis, the journal *Edumecentro* found that 64% of its authors belonged to its editorial board. In sports journals in Spain, more than 50% of the journals evaluated had inbreeding ranges between 40% and 87.5%. On the other hand, an analysis of editorial inbreeding in two Cuban student journals found values of 5 and 11.9%.[11,12,13]

Taking all of the above into account, the objective of the present work was to evaluate editorial inbreeding in Latin American public health journals and its associated factors.

Methodology

A manual review was carried out of all the original articles published by 16 Latin American journals in the area of public health taken from the SciELO Public Health database, including fascicles published between the years 2016 to 2019 according to the periodicity declared by the journal.

Only original articles and brief reports or their equivalents (original, research, short communications, brief communications, short report, etc.) were studied, determining that they were research products when there was disagreement in the journals that did not have these well-defined sections.

All the names appearing in the editorial body section were considered as editors, and were re-categorized into 4 groups: chief editors, associate editors, editorial committee and advisory board, according to the different categories of editors mentioned by the journals.

The position of inbred authors was evaluated: correspondent author, first author or co-author, and was defined in that order if sharing more than one position. The proportion of inbreeding per year was assessed in each journal. The analysis variable was the presence of

editorial inbreeding. In addition, the journals were analyzed according to the degree of indexing in PUBMED / MEDLINE or only SciELO. The origin of the journal, the position of greatest inbreeding in each journal, the most frequent type of contribution of inbred articles, as well as the number of authors of each manuscript belonging to the editorial committee were also evaluated.

The Wayback Machine tool (https://archive.org/web/) was used to determine annual inbreeding, considering only the members of the editorial committee of each year evaluated with the respective date of publication of the manuscript, given the possibility of an annual change of editors.

Due to the characteristics of the research and the free availability of the evaluated data, evaluation by an ethics committee was not considered necessary. The results were uploaded to a Microsoft Excel database and statistical analyses were carried out with Stata software version 16 (StataCorp., College Station, TX, USA). Descriptive (median, interquartile range) and analytical tests (Mann-Whitney U test and Pearson's Chi-square test) were performed between the presence of inbreeding of the journals and indexing. A p value < 0.05 was considered significant.

Results

During the period from 2016 to 2019, the journals included in the SciELO Health Public database published 5517 original and short original manuscripts, 565 (10.2%) of which had at least one author who was editor of the journal itself. In 51 manuscripts, 2 authors belonged to the editorial committee, and in 9 articles three authors were also editors of the journal. Inbred authors served as general editors (77), associate editors (279), or were on the editorial committee (215), and advisory council (63). The most frequent type of contribution was that of co-author (497 times), first author (109) and correspondent author (28 times). Table 1 shows the remaining characteristics of the journals evaluated and the frequencies of editorial inbreeding.

Table 1 - Characteristics of Latin American public health journals during the 2016-2019 period

Journal	Index	Editorial Committee Members	Original Articles	Total inbred articles	%	Inbreeding			
						2016	2017	2018	2019
Cadernos de Saúde Pública	Medline	45	701	82	11.7	11.9	11.9	7.3	15.9
Ciência & Saúde Coletiva	Medline	123	1348	105	7.8	8.3	7.1	8.6	7.1
Epidemiologia e Serviços de Saúde	Medline	56	213	34	15.9	13.3	15.3	17.2	19.4
Interface - Comunicação, Saúde, Educação	SciELO	140	330	60	18.2	19.7	13.7	24.2	14.4
MEDICC Review	Medline	72	43	4	9.3	11.1	0	7.7	25
Physis: Revista de Saúde Coletiva	SciELO	50	241	13	5.4	5	5	10	1.6
Revista Brasileira de Epidemiologia	Medline	87	284	72	25.4	16.7	19.7	28.3	33.7
Revista Cubana de Salud Pública	SciELO	15	119	8	6.7	7.1	15.4	5.9	0
Revista de Salud Pública	Medline	29	289	20	6.9	5.3	12.6	4.4	2.9
Revista de Saúde Pública	Medline	37	423	25	5.9	3.3	6.9	8.3	4.9
Revista Panamericana de Salud Pública	SciELO	25	157	1	0.6	1.7	0	0	0
Revista Peruana de Medicina Experimental y Salud Pública	Medline	67	223	57	25.6	25	23.1	21.2	32.2
Salud Colectiva	Medline	44	149	13	8.7	8.1	8.9	7.7	10.7
Salud Pública de México	Medline	39	277	43	15.5	20.7	17.8	15.1	9.6
Saúde e Sociedade	SciELO	45	328	6	1.8	1.1	0	3.9	2.7
Saúde em Debate	SciELO	37	392	22	5.6	10.1	4.1	5.3	4.6

Table 2 presents the bivariate analysis between the characteristics of the journals with the degree of indexing, finding that in the percentage of inbred manuscripts and inbreeding in 2019 there are significant differences between the journals belonging to PUBMED/MEDLINE compared to those that are from SciELO.

Table 2 – Bivariate analysis according to type of indexing in Latin American public health journals during the 2016-2019 period.

	Indexing				
	Medline (n = 10)		**SciELO (n = 6)**		**P**
	Median	IQR	Median	IQR	
Membership numbers	50.5;	(39 – 72)	41;	(25 – 50)	0.33*
Total manuscripts	280.5;	(213 – 423)	284.5;	(157 – 330)	0.83*
% inbred manuscripts	10.5;	(7.8 – 15.9)	5.5;	(1.8 – 6.7)	0.02*
% Inbreeding 2016	11.5;	(8.1 – 16.7)	6.1;	(1.7 - 10.1)	0.10*
% Inbreeding 2017	12.3;	(7.1 – 17.8)	4.6;	(0 – 13.7)	0.13*
% Inbreeding 2018	8.5;	(7.7 – 17.2)	5.6;	(3.9 – 10)	0.16*
% Inbreeding 2019	13.3;	(7.1 – 25)	2.2	(0 – 4.6)	0.01*
Most inbreeding position	n	%	N	%	0.69#
Co-author	9	64.3	5	35.7	
First Author	1	50	1	50	
Periodicity					0.31#
Monthly	2	100	0	0	
Bimonthly	2	100	0	0	
Quarterly	3	42.9	4	57.1	
Continuous	3	60	2	40	
* Mann-Whitney U					
# Chi squared					
IQR: Interquartile range					

Table 3 presents the bivariate analysis according to inbreeding of the published articles, showing that only the origin of the journal had no statistical significance in this analysis, being different for the remaining variables.

Table 3 – Bivariate analysis according to inbreeding in Latin American public health journals during the 2016-2019 period.

	Inbreeding				
	Yes (565)		**No (4952)**		P
	Median	**IQR**	**Median**	**IQR**	
Number of authors	4;	(3 – 5)	4;	(3 – 5)	< 0.01*
Days until acceptance	149;	(85 – 236)	179;	(118 – 260)	< 0.01*
Type of manuscript	n	%	N	%	< 0.01#

Original article	525	92.9	4331	87.5	
Brief report	40	7.1	621	12.5	
Conflict of interests	n	%	N	%	< 0.01#
Yes	15	2.7	37	0.8	
No	218	38.6	1776	35.9	
No mention	332	58.8	3139	63.4	
Journal provenance	n	%	n	%	0.07#
Brazil	419	74.2	3841	77.6	
Rest of Latin America	146	25.8	1111	22.4	
Index	n	%	n	%	<0.01#
Medline	455	80.5	3945	70.6	
SciELO	110	19.5	1457	29.4	
*Mann-Whitney U					
# Chi squared					
IQR: Interquartile range					

Discussion

The publication of manuscripts by the editor or the editorial committee of the journals in which they participate is an under-researched subject. However, it seems to be a relatively frequent practice. For example, *Hamilton* in a study about Journal policies and editors' opinions on peer review found that 79% of the editors surveyed considered this to be an acceptable practice.[14]

The inbreeding found in the Latin American public health journals included in the study during the period from 2016-2019 was 10.2%. This is similar to the data obtained by *Walters*[15] in a description of 30 journals published between 2007-2012, describing that Libraries and Information journals reached a level of inbreeding of up to 8%. From 2005 - 2008, *Bosnjak* found that 53% of the members of the Editorial Board had published one or more articles of their original journals.[7] *Luty* reported that the possibility of selective publication in his own journal was due to a sense of loyalty or gratitude to the editors-in-chief and the expectation of a more comprehensive review from the fellow editors.[16]

The highest inbreeding was statistically higher in the group of journals belonging to Medline. *Bosnjak*[7] showed that in Croatian journals indexed in the Web of Science or SCOPUS two editors had published more than five articles in their own journal. This is to

be expected, since editors, like other researchers, also require the academic promotion that publishing in higher impact journals provides. Mani concluded that inbreeding is due to editorial board members being academically active and committed to publishing.[17] Likewise, in dental journals the possibility of greater inbreeding was found with journals with the highest impact factor.[18] On the contrary, *Zdenek* found that the impact factor was not associated with the publishers' ability to publish in their own journals.[19]

In the present study, the *Revista Peruana de Medicina Experimental y Salud Pública* (RPMESP) and the *Brazilian Journal of Epidemiology* had the highest rate of inbreeding. In Peru, the RPMESP is one of the 2 journals indexed in Medline, and thus, in this case the limited option that editors have to publish their results is met.[5,9] These results could also be due to the greater number of members of the editorial team in medical journals than in other areas.[7,15,16,19] This is demonstrated by the *Pan American Journal of Public Health*, with 25 editors, having the lowest inbreeding rate of the entire group.

In 2019, it was noted that the level of inbreeding in journals increased. Similarly, *Rösing* found that editorial inbreeding increased in the last year evaluated (2012), although this did not correspond to the gradual increase in the total number of articles published by journals.[18] *Zdenek* reported opposite results, since inbreeding was decreasing, being lower at the end of the evaluated period.[19]

Overall, associate editors were found to have the greatest number of inbred publications, followed by committee members, contrary to what was found in a study in communication journals, in which the highest proportion of inbred articles came from the editorial board.[4] This finding is significant, since it is the associate editors who have greater access and decision-making power in the editorial processes of their journals, being even greater than the editor-in-chief, which in some cases is a position of an honorary nature.[7] It is for this reason that the Committee on Publication Ethics (COPE) suggests that in the case of articles published by editors the measures taken to comply with the required evaluation process should be made public.[9]

When analyzing the time taken for peer review by authors who are members of the editorial committee compared to those who are not, it was of note that review was statistically significantly faster in manuscripts of inbred authors, suggesting editorial bias and a greater possibility of the manuscript being accepted in less time. This leads to the question whether it is possible to ensure the objectivity of the reviewers and the same review when the manuscript is by a member of the editorial committee.[20]

However, there are also descriptions of when the reverse process occurs and editors' manuscripts are rejected.[21]

There were no differences between the position of the editor in the article and the type of indexing, similar to what was found by *Zdenek*[19] as well as *Mani*.[17] This is striking since research evaluation agencies tend to consider being the first author or correspondent author of published articles to be a greater merit.

On the other hand, the origin of the journal did not influence inbreeding. *Youk & Park* found similar results when evaluating local and external affiliation in the case of the United States.[4] It is important to highlight this data, since journals from Brazil represent more than 50% of the total of journals published and despite that their frequencies of inbreeding are lower, although not significant, compared to the rest of Latin America.

Regarding conflicts of interest, there was a greater tendency to a declaration of conflict in endogamous manuscripts. Previous studies report that a declaration of conflicts of interest was mandatory by most journals;[22] however, for editors it was rare, and only 19% of journals mentioned this feature in their submission and review instructions.[23]

It is important to evaluate the high rate of inbreeding as well as the individual scientific production of each editor, to ensure that, despite publishing in their journals, the editors do not use these journals as a means to increase their scientific production.[24]

Conclusion

The publication of editors in their own journals is frequent in Latin American public health journals and tends to be more frequent in journals indexed in Medline database. In addition, the review time for publications authored by editors is shorter compared to that of other authors.

Latin American public health journals and, in general, all biomedical journals must pay special attention to their editorial processes when they have members of their editorial committee as authors, and the scientific integrity, transparency and quality of the scientific publication can be guaranteed.

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Conflicto de intereses

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