Female authorship in Latin American pediatric journals

Paula Otero, M.D. a,b, Cecilia Marcos c and Fernando Ferrero, M.D. b,c

ABSTRACT

Introduction. The participation of women in science increases every day. Here we estimated their participation in authorship in three Latin American pediatric journals indexed in PubMed.

Methods. All articles published in 2015 in the Archivos Argentinos de Pediatría, the Jornal de Pediatria and the Revista Chilena de Pediatria were identified, and the first and last authors and the total number of authors by sex were determined.

Results. A total of 329 articles were identified. Out of 1432 authors, 59.9% were women. Also, 54.4% of all first authors and 48% of last authors were women. No significant difference was observed in female authorship ratio among the three journals. Archivos Argentinos de Pediatria had a significantly lower number of women as first and last authors.

Conclusion. Women authorship ratio across three Latin American pediatric journals reached 59.9%. Their role as first or last authors was significantly lower in the Archivos Argentinos de Pediatria.

Key words: Authorship, research report, women, periodic publications.


INTRODUCTION

The participation of women in the medical field has increased considerably in the 20th century. As mentioned by Filardo, the female physicians ratio reaches 33% in the United States of America, 47% in the United Kingdom, and over 50% in Eastern Europe. The female physicians ratio is 50% in Argentina (60% among those younger than 40 years); 40% in Brazil (53% among those younger than 30 years); and 33% in Chile (46% among those younger than 30 years). In the field of pediatrics, the participation of women is even more clear based on the number of female members of the Argentine Society of Pediatrics (9044/12,772, 70.8%), the Brazilian Society of Pediatrics (16,372/22,158, 74%), and the Chilean Society of Pediatrics (1393/2880, 48.3%) (data obtained from the corresponding organizations in April 2017).

In spite of such apparent quantitative balance, there might still be differences in access to certain settings. For example, in Argentina, 73.1% of medicine students of Universidad de Buenos...
Aires are women,\textsuperscript{5} while only 53.7\% of professors are also women.\textsuperscript{6}

Academic activity, especially that related to scientific publications, is one of the sectors where gender-associated differences are found; although the situation has remarkably improved, women are still underrepresented, mainly in high-ranking positions.\textsuperscript{7}

Ten years ago, in the field of pediatrics and in our region, the participation of women in scientific publications was still limited, although it had increased over the past years.\textsuperscript{8}

Our objective was to estimate the participation of women as authors of articles published in 2015 in three Latin American pediatric journals indexed in PubMed.

**MATERIAL AND METHODS**

All articles published in 2015 in three Latin American pediatric journals indexed in PubMed were identified: *Archivos Argentinos de Pediatría*, Argentina, *Jornal de Pediatría*, Brazil and *Revista Chilena de Pediatría*, Chile. This procedure was conducted by searching the bibliographic database of the Latin American and Caribbean Health Sciences Literature (LILACS: http://lilacs.bvsalud.org/es/), and the web site of each journal if data was not available in LILACS.\textsuperscript{8}

References included original studies, case reports, reviews, and editorial comments. Comments from other journals were excluded.

Once articles were selected, the gender of the first and last authors and the total number of authors by sex of each publication were determined and described as percentages (estimating the 95\% confidence interval [CI] of main results).

For each outcome measure (first author, last author, total number of authors), association between gender and each journal was assessed using the $\chi^2$ test. A $p$ value $< 0.05$ was considered significant.

Ethical considerations: All data used in this study were in the public domain and available online.

**RESULTS**

The analysis included 329 articles that corresponded to 1432 authors for which gender was identified (in five cases it was not possible to establish their gender based on their name or degree) (Table 1).

No significant differences were observed in the female authorship ratio (59.9\%, 95\% CI: 57.3-62.4) among the three journals. Also, 54.4\% of all first authors and 48\% of last authors were women.

The first and last female authorship ratio was significantly lower in *Archivos Argentinos de Pediatría* than in the two other journals (Table 1).

**DISCUSSION**

The female authorship ratio in Latin American pediatric journals is close to 60\%. Such ratio has increased steadily over the past 30 years: 38\% in 1985, 42\% in 1995, and 48\% in 2005.\textsuperscript{8} A similar situation is observed in relation to women participation as first authors, which had been reported to be 27\% in 1985, 34\% in 1995, and 42\% in 2005,\textsuperscript{8} compared to 54\% in 2015 according to this study. Such tendency has also been reported in the past 20 years in the most important journals of internal medicine.\textsuperscript{3}

Such tendency could be due to a greater participation in research teams and a better access to research grants. For example, the female investigators ratio has increased up to 53\% in Argentina, 36\% in Brazil, and 32\% in Chile.\textsuperscript{9} In Argentina, such increase has been mainly at the

<p>| Table 1. Distribution of authors by sex and publication in three Latin American pediatric journals indexed in PubMed |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th><strong>Articles</strong></th>
<th><strong>Authors</strong></th>
<th><strong>Female author</strong></th>
<th><strong>Female first author</strong></th>
<th><strong>Female last author</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td><em>Archivos Argentinos de Pediatría</em></td>
<td>156</td>
<td>771</td>
<td>447 (57.9)</td>
<td>71 (45.5)</td>
</tr>
<tr>
<td><em>Jornal de Pediatría</em></td>
<td>103</td>
<td>385</td>
<td>241 (62.5)</td>
<td>63 (61.1)</td>
</tr>
<tr>
<td><em>Revista Chilena de Pediatría</em></td>
<td>70</td>
<td>276</td>
<td>170 (61.5)</td>
<td>45 (64.2)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>329</td>
<td>1432</td>
<td>858 (59.9)</td>
<td>179 (54.4)</td>
</tr>
</tbody>
</table>

\* $p > 0.1$ (a versus b, b versus c, and a versus c).  
** $p < 0.05$ (a versus b,c).  
*** $p < 0.01$ (a versus b,c).
expense of grant holders and the admission of professionals to the research career.

Although female last authorship has remained relatively stable for almost 20 years (1985: 35.8%, 1995: 29.4%, 2005: 38.1%), it has grown considerably (48% in 2015), although it has not reached the relevance of the other indicators. The participation of women in research activities has possibly increased but this is still not reflected in high-ranking positions. In 2013, in the National Scientific and Technical Research Council (Consejo Nacional de Investigaciones Científicas y Técnicas, CONICET) of Argentina, 57% of assistant investigators (initial category) were women but only 37% of them were promoted to senior investigators (highest category).11

Recently, Macaluso et al. reviewed 85,000 articles from journals published by the Public Library of Science (PLOS) and found that women participation in scientific publications was significantly associated with the role of “performing experiments.” This was regardless of their years of academic experience, since it was expected that an older “academic age” would mean participation in other roles identified as better ranking (designing the study, writing the manuscript).12

In addition, there are other factors as varied as “control over the amount of work assigned” or “suffering exhaustion from the ongoing work,” which show gender differences that may affect scientific output,13 which may partially explain the differences in authorship.

Finally, it is not easy to account for the differences observed among the three journals included in this study. These are the most relevant pediatric journals in their countries and are all indexed in PubMed (Jornal de Pediatría: 2003; Archivos Argentinos de Pediatría: 2008; and Revista Chilena de Pediatría: 2014).

For the last three years, Archivos Argentinos de Pediatría has published its main content in Spanish and English and receives important contributions from abroad, especially Ibero-America, and this may have added a gender bias from other countries. It is also worth considering the potential impact of the corresponding composition of editorial boards and review teams.14

Despite the limitations of such inference, the chance of comparing results with those of other studies conducted using the same methodology makes it possible to estimate an ever-growing tendency and ponder on the fact that the participation of women in these journals has not yet reached its highest point.

It is worth noting that gender inequality is not only a matter of the academic field but is evident in other working environments, and still today has a major impact on the unemployment rate, which involves mostly women, especially young ones.15

CONCLUSION

The presence of women as authors of articles published in Latin American journals has increased steadily over the past decades. In this study, the ratio of female authorship across three Latin American pediatric journals reached 59.9%. Their participation as first or last authors was significantly lower in the Archivos Argentinos de Pediatría.

Acknowledgments

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REFERENCES

Strategies for compliance with the internship program among three pediatric interns with latex allergy

Stefanía Barbariol, M.D.,* Alfredo Eymann, M.D.,†,‡ Julián Llera, M.D.,§ and Claudio A. Parisi, M.D.¶

ABSTRACT

Introduction. Latex allergy is common in the hospital setting.
Objective. To describe the clinical situation of three pediatric interns with latex allergy and the prevention strategies implemented during clinical clerkships in pediatric and neonatal intensive care units.
Patients, methods, and outcomes. The three interns referred symptom exacerbation during their internship program. Diagnosis was confirmed based on a compatible history and positive specific immunoglobulin E. A semi-structured interview was done to describe perceptions about prevention strategies, the personnel were trained, and nitrile gloves were provided for carrying out procedures. Interns completed their clinical clerkships without having allergic reactions. Positive aspects referred by interns were that they felt cared for and experienced an improved quality of life; negative aspects were a bad predisposition and resistance against change among some other interns. Strategies designed to this end permitted interns to continue their internship program.

Key words: latex allergy, medical internship program, prevention, health care providers.

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INTRODUCTION

Latex allergy was first described in Germany in 1927.¹ As of the 1980s, the number of case reports increased notably, mainly due to three factors: a) massive use of latex gloves to prevent disease transmission, b) reduced production quality with an increase in protein content, and c) replacement of talc powder with cornstarch powder to prevent granuloma formation.

Frequent use of latex gloves in closed areas, e.g. operating theaters, generates a high density atmosphere of cornstarch particles, and, because of their high molecular weight, smaller particles, such as latex, tend to adhere onto their surface and are carried away.²

Clinical manifestations vary depending on the route of exposure: they may range from mild effects, such as contact urticaria or rhinoconjunctivitis, to severe ones, e.g. anaphylaxis.³

The internship program is a professional socialization system that helps, through an