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Original Article

Gender Gap in the Authorship of Scientific Publications: An Analysis Based on Revista Chilena de Fonoaudiología

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ABSTRACT

Gender inequality is present in various social contexts, including academia and scientific practices, as reflected in the authorship of publications. The aim of this study is to determine whether differences exist between men and women regarding first authorship, the thematic areas investigated, and the effect of the first author's gender on team composition in articles published in Revista Chilena de Fonoaudiología between 1999 and 2020. An analytical and retrospective study was conducted using univariate Generalized Linear Models (GLM) with a log link, Poisson family, and robust estimation. The results showed that 53.4% of the articles had a woman as the first author, which dropped to 43.8% between 2016 and 2020. Men predominated in areas such as swallowing and voice, while women were more prominent in child communication and language (61.9%). Additionally, the probability of women being co-authors decreases when men are the first authors. These results indicate that, despite the relevant role of female scientists, the gender inequality in publications persists.

Keywords:
Gender Gap; Speech and Language Therapy; Bibliometrics

Brechas de género en la autoría de publicaciones científicas: Un análisis en base a la Revista Chilena de Fonoaudiología

RESUMEN

La desigualdad de género está presente en diversos contextos sociales, incluyendo la academia y las prácticas científicas, reflejándose en las autorías de publicaciones. El objetivo de este estudio es determinar si existen diferencias entre hombres y mujeres en la primera autoría, las áreas temáticas investigadas y el efecto del sexo de la primera autoría en la conformación del equipo, en artículos de la Revista Chilena de Fonoaudiología entre 1999 y 2020. Se realizó un estudio analítico y retrospectivo utilizando modelos generalizados lineales (GLM) univariados con link log, familia Poisson y estimación robusta. Los resultados mostraron que el 53,4% de los artículos tenían a una mujer como primera autora, cifra que disminuyó al 43,8% en el periodo 2016-2020. Los hombres predominaban en áreas como deglución y voz, mientras que las mujeres lo hacían en comunicación y lenguaje infantil (61,9%). Además, la probabilidad de que haya mujeres entre los coautores disminuye cuando los primeros autores son hombres. Estos resultados indican que, a pesar del rol relevante de las científicas, persisten brechas de género en las publicaciones.

Palabras clave:
Brecha de género; Fonoaudiología; Bibliometría

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INTRODUCTION

Scientific communication, whether oral or written, aims to disseminate knowledge within society to foster its development (Briceño, 2012; Ramírez Martínez et al., 2012; Vargas Torres, 2018). This type of communication is carried out through various media. However, the most widely used, recognized by the majority of disciplines for decades, is scientific publication in academic journals (Abadal, 2017; Población et al., 2011).

Since science can be understood as a social activity occurring within a specific context and is part of each community's unique culture (Vargas Torres, 2018), it is expected that scientific activities will be influenced by and reflect attributes of specific cultural contexts (Chiappa, 2023).

Inequality, Gender Stereotypes, and Science

One aspect present in contemporary societies and cultures is the inequality between men and women. Although numerous advancements have been made in recent years to promote equality, this issue still permeates daily interactions, sometimes even provoking negative reactions toward such progress (e.g., Cassino & Besen-Cassino, 2021). This inequality manifests in various dimensions, such as education (Jeria-León & Jiménez-Moya, 2024), healthcare (Criado-Perez, 2020), the professional development of men and women (Undurraga & López-Hornickel, 2020), and science (Huang et al., 2020).

To understand the origins and processes through which this inequality operates, it is necessary to differentiate between the concepts of sex and gender and to understand how they relate to one another. From the perspective of biology and psychology, sex refers to the biological and physiological attributes that define men and women, while gender refers to the socially constructed characteristics, behaviors, roles, etc., that are assigned and expected of individuals based on their sex (see Ferrer Pérez, 2017). These concepts operate as a binary: the female gender, associated with specific behaviors and characteristics, is expected from and assigned to women, while the masculine gender, associated with a different set of characteristics, is expected from and assigned to men.

A concept directly related to gender is gender stereotypes, which define the characteristics society attributes to men and women. In particular, the male gender—and, therefore, men—is associated with attributes such as intelligence, self-confidence, and leadership; meanwhile, the female gender—and, therefore, women—is linked to characteristics such as caring for others, listening skills, warmth, and emotionality (Glick & Fiske, 1996; Kite et al., 2008). Although it may seem that gender stereotypes have no place in today's society, where the idea of gender equality is increasingly supported, evidence shows that they remain deeply ingrained (e.g., Ellemers, 2018; Jiménez-Moya et al., 2022).

Gender stereotypes reinforce and legitimize the notion that men are better suited for leadership roles and working in public and scientific spaces, while women are better suited for caregiving tasks and working in domestic settings (Carvacho et al., 2023). In other words, people generally continue to perceive science as a male-dominated field (e.g., Hofstra et al., 2020; Ross et al., 2022; Woolston, 2020).

Gender stereotypes in science are present from childhood, where boys are seen as more intelligent than girls (Bian et al., 2017). A recent study showed that preschool-age boys and girls in Chile associate science with the male gender (Del Río et al., 2018). Undoubtedly, this stereotype affects children's interests and their later academic development, such as their decision to pursue doctoral studies (Bostwick & Weinberg, 2022). These socially constructed stereotypical ideas about the roles of men and women in science are also present among teachers, both at school and university, significantly impacting the academic development of both genders (Bruna et al., 2023; Espinoza Catalán & Albornoz, 2023; Mizala et al., 2015). These ideas also impact societies and cultures in general, which in turn affects the academic achievements of men and women (Nosek et al., 2009). In summary, society often perceives women as lacking the necessary qualities to become successful scientists, which impacts their academic and professional development (Carli et al., 2016).

As noted, gender inequality affects scientific practices (Tomassini, 2021), meaning that women are less acknowledged than men in the field (Ross et al., 2022). Numerous studies have shown that women are traditionally underrepresented in scientific settings. These disparities persist even as the number of women with postgraduate education increases (Araújo et al., 2017; Kalpazidou Schmidt & Cacace, 2017; Rezaee et al., 2022; Shen, 2013). Despite significant social changes in recent decades in the country, *Agencia Nacional de Investigación y Desarrollo de Chile* (National Research and Development Agency or ANID) reports gender inequalitys across all areas of knowledge, as well as in scientific dissemination (*Ministerio de CTCI de Chile*, 2022). In the healthcare sector, for example, men show a higher rate of national and international publications, as well as a greater number of awarded projects (Merino et al., 2023).

Gender inequality is also present in one of the most significant scientific practices: authorship in publications. For instance, an

analysis of scientific articles across different fields of knowledge showed that men dominate in the roles of first and last author, positions traditionally considered to carry higher academic prestige. Additionally, the percentage of women in single-author articles is significantly lower than that of men (West et al., 2013). Furthermore, the gender of the first author is associated with the percentage of women participating as co-authors. In this regard, a study found that articles led by women included more than 60% female co-authors, while those led by men included fewer than 20% female co-authors (Salerno et al., 2019).

In summary, gender stereotypes associate men with science, relegating women to less prominent roles in this field. However, despite abundant evidence, both globally and specifically in Chile, regarding gender inequalitys in science and particularly in scientific paper authorship, there are, to date, no studies exploring this within the field of speech-language therapy. Given that there is a higher percentage of female speech-language therapists in Chile and Latin America, one would expect greater female representation in scientific publications, provided that the trends observed in other disciplines do not replicate here. In this context, the objective of this study is to analyze the gender inequalities in scientific articles in the field of speech-language therapy.

Gender Inequalities in the Scientific Context of Speech-Language Therapy

Speech-language therapy focuses on the study of human communication and its disorders, as well as on swallowing, across different stages of the life cycle. In Chile, this field was initially introduced in the 1950s with the creation of the first and only course for *Fonoaudiologístas*, which was a precursor to the formal creation of the Speech-Language Therapy undergraduate program. Three key milestones have significantly influenced the development of this discipline. Firstly, in 1972, the Speech-Language Therapy program was created at Universidad de Chile. Secondly, in 1995, a bachelor's degree was incorporated into the training. Lastly in 1999, Revista Chilena de Fonoaudiología (RChF) was founded (Maggiolo & Schwalm, 2017).

To date, RChF is the first and main medium for scientific production in speech-language therapy in Chile. Traditionally, RChF publishes one issue per year, featuring original articles, case reports, narrative and systematic reviews, book reviews, and letters to the editor on various topics or areas of knowledge related to the discipline. From its inception until 2020, RChF was indexed in the Directory of Open Access Journals (DOAJ), Latindex, Lilacs, *Matriz de Información para el Análisis de Revistas* (MIAR), and the European Reference Index for the Humanities and the Social Sciences (ERIH Plus). As of 2021, this journal is indexed in Scopus likely influencing the type of articles published as well as the origin and composition of authorship. In 2023, RChF was included in the SCImago Journal Rank.

Due to the lack of prior studies on the gender gap in scientific publications in the field, and considering the local relevance of the RChF in Chile and Latin America, this study set out to analyze the gender gap in the authorship of publications in this journal, based on different indicators. This objective is relevant for two reasons. Firstly, it will allow for the gender gaps in speech-language therapy publications to be compared with other fields where studies like this have already been conducted (e.g., West et al., 2013), providing insight into the extent to which these gaps exist across disciplines. Secondly, this analysis will reveal whether active intervention is necessary within speech-language therapy to ensure that women lead scientific publications to the same extent as their male counterparts.

METHODOLOGY

This is an analytical, retrospective study that seeks to identify potential gender-based differences in various indicators related to authorship, topic, and the participation of men and women in the publication of speech-language therapy papers. To achieve this, we reviewed and analyzed the 161 publications in the 24 volumes of RChF, published between 1999 and 2020. Articles published after 2020 were excluded from the study, as the indexing change in 2021 may have influenced authorship composition. Editorials and manuscripts that did not identify authorship, such as interviews and roundtables, were also excluded from the sample.

Three authors of this study (FT, CA, and LT) carried out the review and analysis of the articles. In cases of doubt or discrepancies regarding the extracted information, group discussions were held to reach a consensus. The following bibliometric indicators were used for analysis: 1) gender differences in leadership roles (first authorship) in published articles, 2) the relationship between the gender of researchers and the area of speech-language therapy: child communication and language, adult communication and language, voice, audiology, oral motor therapy (including speech-related articles), swallowing, socio-community, and others (e.g., speech-language therapy education and training, cognition, letters to the editor, reviews), 3) whether the gender of the first author is related to team composition (i.e., the participation of men and women in the article), 4) whether the gender of the first author and the percentage of female participants in the article vary according to

the year of publication, area, and total number of women, and 5) whether the gender of the first author is related to the number of co-authors. To this end, we analyzed the papers published in RChF from its inception in 1999 until 2020. The gender of the authors was inferred based on their first names.

Statistical Analysis

An exploratory data analysis was conducted to identify outliers and determine variable distribution. Given the non-normal distribution found, the median was estimated along with the 25th and 75th percentiles. For categorical variables, absolute and relative frequencies (%) were obtained. The proportion of women as first authors in articles published in RChF was compared to the proportion of female graduates in Chile (*Superintendencia de Salud*, 2020) using an Acock proportion test.

Univariate Generalized Linear Models (GLMs) with a log link, Poisson family, and robust estimation (Huber/White/sandwich estimator) were constructed to determine the association between the gender of the first author (primary outcome) and the following variables: 1) publication year by period (first period from 1999 to 2004, second period from 2005 to 2009, third period from 2010 to 2015, and fourth period from 2016 to 2020), with periods balanced by the range of years regardless of the number of published articles, ensuring each period had a similar number of years (balancing by number of articles was not possible due to the odd total), 2) area of speech-language therapy, including child communication and language, adult communication and language, swallowing, oral motor therapy, teaching, voice, socio-community, and other areas, 3) team composition, specifically the total number of female authors in the article, and 4) the total number of authors in the article. The multivariate GLM included all variables associated with the gender of the first author at a significance level of $p<0.1$ (Hosmer, Lemeshow & Sturdivant, 2013). In all models, the female gender was used as the reference. As for the areas of practice, child communication and language was used as a reference, due to its larger sample size and representation of the expected gender distribution in speech-language therapy. The association measure used was the prevalence ratio (PR), which is appropriate for cross-sectional studies like this one.

All statistical analyses were conducted using STATA version 17 (StataCorp, 2021) with an alpha level of 0.05.

RESULTS

Description of the Selected Studies

The sample included 161 articles, with around 29% published in the period between 1999 and 2004 (see Table 1), and 35% published in a more recent period, specifically between 2016 and 2020. The area with the highest number of publications was child communication and language, representing approximately 39%, while the lowest percentage corresponded to the socio-community area (2.4%). The median number of authors per publication was 2 (p25-p75: 1-4).

First Authorship Analysis

Of the total articles published in RChF, 74.5% include a woman in the authorship. This figure is significantly lower than the percentage of female graduates in Speech-Language Therapy in Chile (85.9%) (Superintendencia de Salud, 2020). Regarding first authorship, only 53.4% of publications have a woman as the first author, which also differs significantly from the total percentage of female graduates ($p<0.001$). Additionally, significant differences ($p=0.020$) were observed in the proportions of first authors by gender according to the year of publication. The first three periods showed a higher proportion of women as first authors (68.09%, 56.0%, and 46.88%, respectively), while the last period showed a higher proportion of men as first authors (56.14%) (see Table 2).

Table 1. Descriptive statistics for the articles published in RChF between the years 1999 and 2020 (n=161).

	Total Published Articles, Absolute Frequency (%) or Median	Female First Author (Absolut Frequency (%) or Median)	Male First Author (Absolut Frequency (%) or Median)
Year of Publication			
1999 - 2004	47 (29.19%)	32 (68.09%)	15 (31.91%)
2005 - 2009	25 (15.53%)	14 (56.0%)	11 (44.0%)
2010 - 2015	32 (19.88%)	15 (46.88%)	17 (53.12%)
2016 - 2020	57 (35.40%)	25 (43.86%)	32 (56.14%)
Area			
Child Communication and Language	63 (39.13%)	39 (61.90%)	24 (38.10%)
Audiology	12 (7.45%)	8 (66.67%)	4 (33.33%)
Swallowing	10 (6.21%)	2 (20.0%)	8 (80.0%)
Adult Communication and Language	17 (10.56%)	6 (35.29%)	11 (64.71%)
Oral Motor Therapy	13 (8.07%)	9 (69.90%)	4 (30.77%)
Teaching	9 (9.59%)	4 (44.44%)	5 (55.56%)
Voice	12 (7.45%)	5 (41.67%)	7 (58.33%)
Socio-Community	4 (2.48%)	3 (75.0%)	1 (25.0%)
Other Areas	21 (13.04%)	10 (47.62%)	11 (52.38%)
Median of Authors per Manuscript (25^{th} Percentile-75th Percentile)	2 (1-4)	2 (1-4)	2 (1-4)
Median of Women in the Manuscript (25^{th} Percentile-75th Percentile)	1 (0-3)	2 (1-3)	0 (0-2)

Analysis of First Authorship per Area

Differences were also observed in the distribution of the first authorship when analyzed by area. In the area of child communication and language, 61.9% of first authorship corresponds to women, while in adult communication and language, 64.71% of first authors are men (see Table 2).

Analysis of First Authorship and Areas According to Gender

In the multivariate GLM model, which included the associated variables with a *p*-value < 0.1 (see Table 2), it was observed that in the fourth period, covering 2016 to 2020, there was a prevalence ratio of 1.81. That is, there was an 81% higher prevalence of men as first authors compared to the period from 1999 to 2004 (PR: 1.81; 95% CI 1.15-2.84; $p = 0.010$).

Regarding the areas of practice, swallowing showed a 91% higher prevalence of male first authors compared to the area of child communication and language (PR: 1.91; 95% CI 1.17-3.10; $p = 0.009$). A similar result, but of a smaller magnitude, was observed in the area of voice (PR: 1.66; 95% CI 1.02-2.68; $p = 0.040$) and adult communication and language (PR: 1.67; 95% CI 1.10-2.53; $p = 0.017$).

Gender-Based Analysis of the Percentage of Women in the Articles

In the multivariate GLM model, which included the associated variables in the univariate models (see Table 3), no significant differences were observed in the percentage of women according to year of publication. However, a significant difference was found when comparing the area of adult communication and language, where the prevalence of men was 25% lower in the composition of the research team when compared to child communication and language (PR: 0.75; 95% CI 0.59-0.94; p=0.012). A similar result was observed in the area of voice rehabilitation (PR: 0.80; 95% CI 0.64-0.99; p=0.039).

Table 2. Generalized linear models with a log link and Poisson family to determine the variables associated with gender in the articles published in RChF (n = 161). The effect measure was the prevalence ratio (PR).

	First Authorship Gender (Woman as a Reference)			
	Univariate PR (95% CI)	p-value	Multivariate PR (95% CI)	p-value
Year of Publication				
1999 - 2004	Reference	-	Reference	-
2005 - 2009	1.38 (0.75-2.53)	0.301	1.33 (0.78-2.27)	0.296
2010 - 2015	1.67 (0.98-2.83)	0.059	1.55 (0.96-2.50)	0.076
2016 - 2020	**1.76 (1.09-2.83)**	**0.020**	**1.81 (1.15-2.84)**	**0.010**
Area				
Child Communication and Language	Reference	-	Reference	-
Audiology	0.88 (0.37-2.07)	0.761	1.01 (0.45-2.27)	0.986
Swallowing	**2.1 (1.35-3,27)**	**0.001**	**1.91 (1.17-3.10)**	**0.009**
Adult Communication and Language	**1.70 (1.06-2.72)**	**0.028**	**1.67 (1.10-2.53)**	**0.017**
Oral Motor Therapy	0.81 (0.34-1.94)	0.632	1.00 (0.45-2.21)	0.992
Teaching	1.46 (0.75-2.83)	0.265	1.30 (0.75-2.23)	0.353
Voice	1.53 (0.86-2.71)	0.145	**1.66 (1.02-2.68)**	**0.040**
Socio-Community	0.66 (0.12-3.69)	0.632	0.65 (0.19-2.23)	0.496
Other Areas	1.38 (0.82-2.30)	0.226	1.20 (0.78-1.86)	0.411
Total Authors per Manuscript	0.97 (0.88-1.07)	0.534	-	-
Total Women in the Manuscript	0.70 (0.59-0.84)	**<0.001**	**0.72 (0.62-0.83)**	**<0.001**

Analysis of Gender Differences in Team Composition

The median number of female authors when the first author was a woman was 2 (p25-75: 1-3), whereas when the first author was a man, the median was 0 (p25-75: 0-2) (Table 1). Thus, the analysis revealed that when the first author is male, there is a decrease in the proportion of women among the co-authors (see Table 3). Specifically, the percentage of women decreased by 49% (PR: 0.51; 95% CI 0.42-0.62; $p < 0.001$) when the first author was a man.

Table 3. Generalized linear models with a log link and Poisson family to determine the variables associated with the percentage of women in articles published in RChF (n = 161). The effect measure was the prevalence ratio (PR).

	Percentage of Women in the Article			
	Univariate PR (95% CI)	p-value	Multivariate PR (95% CI)	p-value
Year of Publication				
1999 - 2004	Reference	-	Reference	-
2005 - 2009	0.90 (0.67-1,22)	0.499	-	-
2010 - 2015	0.95 (0.73-1,24)	0.693	-	-
2016 - 2020	0.93 (0.74-1,16)	0.521	-	-
Area				
Child Communication and Language	Reference	-	Reference	-
Audiology	0.81 (0.51-1,28)	0.363	0.92 (0.68-1.25)	0.605
Swallowing	**0.77 (0.61-0,97)**	**0.029**	1.00 (0.71-1.39)	0.978
Adult Communication and Language	**0.65 (0.46-0,92)**	**0.016**	**0.75 (0.59-0.94)**	**0.012**
Oral Motor Therapy	0.90 (0.71-1,13)	0.353	0.86 (0.70-1.05)	0,138
Teaching	0.70 (0.43-1,13)	0.147	0.84 (0.57-1.24)	0.378
Voice	0.81 (0.62-1,07)	0.139	**0.80 (0.64-0.99)**	**0.039**
Socio-Community	0.88 (0.47-1,62)	0.672	0.85 (0.59-1.22)	0.377
Other Areas	0.79 (0.57-1,09)	0.131	0.91 (0.70-1.17)	0.454
Total Authors per Article	**1.05 (1.01-1,08)**	**0.014**	**1.07 (1.03-1.11)**	**<0.001**
First Authorship Gender				
Woman	Reference	-	Reference	-
Man	**0.51 (0.42-0,62)**	**<0.001**	**0.51 (0.42-0.62)**	**<0.001**

DISCUSSION

The objective of this study was to determine whether there are differences in the representation of men and women in various indicators related to authorship and team composition in scientific articles published in RChF. We analized every article in the 24 volumes of the journal published between 1999 and 2020. The results reveal that the proportion of women as first authors varies by area of study. Some areas show a higher proportion of women compared to men, such as child communication and language (62% women vs. 38% men). In contrast, other areas have a higher proportion of men as first authors, such as adult communication and language (35.2% women vs. 64.7% men), swallowing (20% women vs. 80% men), and voice (41.6% women vs. 58.3% men). Multivariate analyses confirm that the area of swallowing had a 91% higher prevalence of male first authors, compared to the area of child communication and language.

These results may be related to the effect of gender stereotypes: women tend to research more in the area of child communication and language, a discipline traditionally associated with the care and education of children. In contrast, other areas, considered closer to a medical approach, such as adult communication and language, voice, and swallowing, are associated with characteristics traditionally linked to men (Ellemers, 2018). Therefore, it is more common for men to choose these topics as research subjects. In other words, the differences found regarding areas of practice could be attributed to the impact of gender stereotypes on the interests of both genders, leading them to select research topics that align with said stereotypes and societal expectations of them (Bian et al., 2017; Hyde & Linn, 2006).

The results also show a significant decrease in the proportion of women as first authors over the years, with a corresponding increase in the number of men. Multivariate analyses revealed that the prevalence of men as first authors in the most recent period increased by nearly 60% compared to the first period. When comparing these data with the proportion of women graduating in speech-language therapy (86%), according to figures from the Chilean Health Superintendence, we can affirm that there is an underrepresentation of women as first authors, a situation that has worsened over time.

The analyses also show the effect of the first author's gender on team composition. When men are first authors, there is a lower likelihood of women being included as co-authors. This is particularly evident in the areas of adult communication and language and voice, where, as previously stated, men predominate as first authors. On the other hand, when women are first authors, the percentage of female co-authors in the article increases. This finding suggests that women tend to include more women in their teams than men do. This result aligns with previous studies that show that the gender of the lead author impacts the inclusion of female co-authors (Salerno et al., 2019).

These findings are highly relevant because, considering the advances in gender equity and the rise of more egalitarian attitudes in recent years, it would be expected for the percentage of female first authors to increase over time. However, it is possible that, despite these apparent changes in favor of equality, traditional gender stereotypes persist under the surface, limiting women's development in certain fields (Jiménez-Moya et al., 2022), and hindering their full advancement in the scientific domain.

This study has certain limitations. Firstly, although the results indicate an underrepresentation of women in the composition of authorship in speech-language therapy, it is not possible to determine whether all the articles analyzed were written by speech-language therapists. However, the impact of this limitation should be minor, given that RChF is the primary medium for the dissemination of speech-language therapy research in Chile. If there were an effect from including authors from other disciplines, this would appear mainly in child communication and language, as this area traditionally shares more space with other professions, such as education, linguistics, and psychology. Despite this, the study showed a significantly higher proportion of women in this area. Another limitation is that gender was assigned based on the first name of the authors, which was not directly confirmed with them or requested from the RChF and could lead to confusion. However, since names typically have a clear gender distinction in Spanish due to their grammatical form, the effect of this limitation should be minor.

This research contributes to a better understanding and visibility of gender inequality in the field of speech-language therapy in Chile, particularly in the composition of authorship. This knowledge may be useful for implementing actions aimed at eradicating such inequalities. Doing so is undoubtedly a challenge that requires questioning deeply rooted beliefs and practices at both the individual and social levels. Therefore, it is crucial to share these results among professionals to raise awareness of how gender stereotypes might be impacting scientific practices. This is because the first step to generating different behaviors (e.g., having men who lead studies include more women in their teams) is to increase awareness of the problem and to make unconscious practices visible, which might go unnoticed but can be modified through training (e.g., Chua & Freeman, 2021).

Among possible actions, it would be advisable to offer training on equality issues aimed at faculty members. This is because, as mentioned, educators play a key role in perpetuating gender stereotypes. These topics should also be addressed with undergraduate students to ensure they choose the area of speech-language therapy they want to pursue freely, without the pressure of gender. In this regard, mentoring programs for female students may be useful to increase their confidence and effectiveness (Shen et al., 2022).

Finally, at a general and structural level, the design and implementation of interventions that promote gender equality and challenge traditional roles and stereotypes are also key to achieving long-term equality in the scientific field. Working with children and adolescents is particularly relevant, as this helps to establish new norms and valid behaviors for the younger

generation, independent of stereotypes and pressures to conform to a specific gender (Luengo Kanacri & Jiménez-Moya, 2019).

CONCLUSION

The analyzed articles show that, although women scientists play a significant role in the field of speech-language therapy, the gender gap persists. Specifically, men are more frequently listed as first authors in publications. Moreover, there are differences between the topics researched by men and women within the field of speech-language therapy, as both tend to publish more articles on topics that align with gender stereotypes. Furthermore, when a woman is the first author, it is more likely that other women will be included as part of the research team, compared to cases where men are the first authors. These gaps are consistent with subtle and implicit attitudes and beliefs, such as supporting gender stereotypes that legitimize the idea that men and women should develop different roles in society and that men are better leaders and scientists.

In this context, it is imperative to make these gaps visible, as well as to promote policies and practices that help reduce the stereotypes reflected in science and scientific publications, which create inequality of opportunity between men and women.

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