



Women Representation among Editors-in-Chief in Physical Education Journals

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Abstract

This study examined women representation in editor-in-chief (EiC) position at physical education (PE) journals. A total of twenty-five PE journals were selected from *Web of Science* (*Social Science Citation Index* and *Emerging Sources Citation Index*) and *Scopus*. Each journal was classified based on indexation [*Journal Impact Factor-Journal Citation Reports* (JIF-JCR)/*Journal Citation Indicator-Journal Citation Reports* (JCI-JCR)/*Scimago Journal & Country Rank* (SJR)], subject category, quartile (ranking year 2020), region, language(s) and EiCs' gender. Only five journals (20%) listed women as EiCs: *Apunts Educación Física y Deportes* (JCI-JCR-Q2, SJR-Q1, Spain), *Educación Física y Ciencia* (JCI-JCR-Q4, Argentina), *Motriz. Revista de Educação Física* (SJR-Q4, Brazil), *Retos. Nuevas Tendencias en Educación Física, Deportes y Recreación* (JCI-JCR-Q4, SJR-Q3, Spain), and *South African Journal for Research in Sport, Physical Education and Recreation* (SJR-Q4, South Africa). Gender disparities are evident in EiC position at the PE discipline. Gathering and reporting data on male-female representation in EiC position is a necessary first step to move towards a more equitable scientific community. A joint effort from editorial boards in PE journals must be done to address this gender gap. A more gender diversity in leading journals might create a publishing environment that can reduce bias in how papers are selected and approved in the PE discipline.

Keywords: female, gender bias, gender gap, gender imbalance, physical education.

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Introduction

Scholarly recognition and impact are necessary for promotion in academia, and women face additional obstacles to obtain high-ranking positions (Larivière et al., 2013). Research productivity is a key factor (Chatterjee & Werner, 2021) and previous literature highlighted a gender imbalance (< 50% ♀) in authorship of papers in fields such as neuroscience (Dworkin et al., 2020), psychology (Huang et al., 2020) or sport sciences (Martínez-Rosales et al., 2021). In addition, a lower h-index has been observed in females compared to males in disciplines such as psychology (Geraci et al., 2015), surgery (Myers et al., 2019) or medicine (Ha et al., 2021). Research on this matter has not focused on physical education (PE). In education sciences, the academic discipline closer to the PE field, three old studies found a lower representation of women authorship (Lockheed & Stein, 1980; White, 1997; Zawacki-Richter & von Prümmer, 2010). More recently, more positive scores (62% ♀) were found (Holman et al., 2018).

The editor-in-chief (EiC) in scientific journals is usually a highly experienced researcher in an academic discipline and plays a major role in all the journal's operations and policies (James et al., 2019). For this reason, holding the EiC position is reserved for senior scientists with a large and productive career (Holman et al., 2018). Evidence supports that women still remain underrepresented among the EiC position of scientific journals in disciplines such as medicine (21% ♀, Pinho-Gomes et al., 2021), dermatology (18% ♀, Lobl et al., 2020), surgery (4.8% ♀, Ehrlich et al., 2021) or sport sciences (0% ♀, Martínez-Rosales et al., 2021; 9% ♀, Ortega et al., 2015). No previous research has been conducted in PE field. Based on the aforementioned, the purpose of this study was to investigate the gender distribution of the EiCs of PE journals indexed in the *Social Science Citation Index* (SSCI), *Emerging Sources Citation Index* (ESCI) and *Scopus*, attending to journals' performance: *Journal Impact Factor-Journal Citation Reports* (JIF-JCR), and/or *Journal Citation Indicator-Journal Citation Reports* (JCI-JCR), and/or *Scimago Journal & Country Rank* (SJR).

Method

A cross-sectional study was designed to examine the proportion of women as EiCs in PE journals. Data were extracted from two databases: *Web of Science* and *Scopus*. As there is no specific science category for the PE discipline, the search process for the journals followed some steps (Figure 1). First, we used the search term 'physical education' in title, abstract or keywords in published articles from *SSCI*, *ESCI* and *Scopus*. Second, results were filtered by the last 5 years (2017-2021) and 3 languages: English, Spanish and Portuguese. Third, we accessed the name of the journals where the articles had been published. The inclusion criteria were: (1) journal name including PE, and/or (2) explicit reference to PE in the aims and scope of the journal. Fourth, two independent

researchers selected the PE journals, resolving discrepancies through discussion and consensus. Finally, 25 PE journals were identified for further analysis.

Data collection took place in January 2022. EiCs were determined based on information available in the journals' website. EiCs' gender was tabulated in binary form (woman or man) via personal and institutional web pages, photograph, Google Scholar or ResearchGate. Each journal was classified based on indexation (JIF-JCR/JCI-JCR/SJR), subject category, quartile (ranking year 2020), region, language(s) and EiCs' gender.

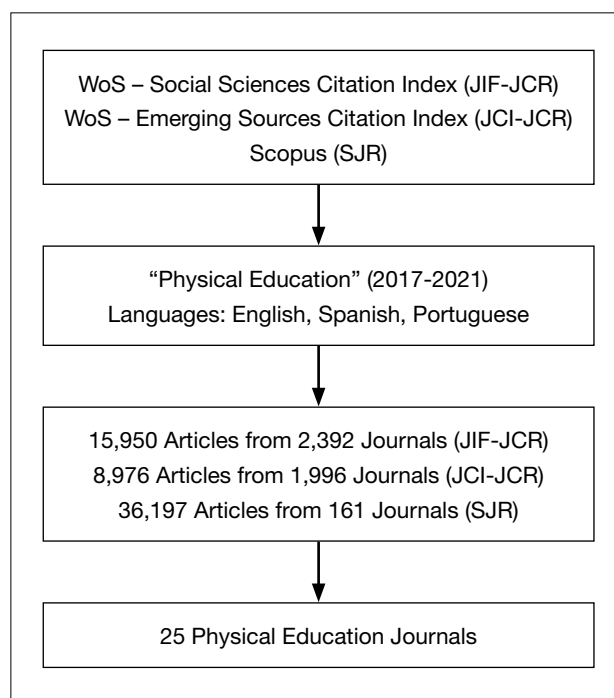


Figure 1
Search strategy.

Results

A total of 25 PE journals were identified (Table 1), indexing in JIF-JCR and SJR (7 journals), JCI-JCR (7 journals), SJR (8 journals), and JCI-JCR and SJR (3 journals). There were a total of 30 EiCs across these journals. In three journals (*Educación Física y Ciencia*, *Journal of Physical Education*, and *Viref-Revista de Educación Física*) 2 or more EiCs were listed. Only five journals (20%) listed women as EiCs: *Apunts Educació Física y Deportes* (JCI-JCR-Q2, SJR-Q1, Spain), *Educación Física y Ciencia* (JCI-JCR-Q4, Argentina), *Motriz. Revista de Educação Física* (SJR-Q4, Brazil), *Retos. Nuevas Tendencias en Educación Física, Deportes y Recreación* (JCI-JCR-Q4, SJR-Q3, Spain), and *South African Journal for Research in Sport, Physical Education and Recreation* (SJR-Q4, South Africa). Therefore, women representation occurred in three JCI-JCR journals and two SJR journals.

Table 1*Gender of editors-in-chief and main features of physical education journals.*

| Journal | Indexation (category) | Region | Language(s) | Editor(s)-in-Chief |
|--|--|----------------|------------------------------|--------------------|
| <i>Ágora para la Educación Física y el Deporte</i> | JCI-JCR-Q4 (Education & Educational Research) | Spain | Spanish, English | Man |
| <i>Apunts Educación Física y Deportes</i> | JCI-JCR-Q2 (Education & Educational Research) SJR-Q1 (Cultural Studies) | Spain | Spanish, English, Catalan | Woman |
| <i>Cultura, Ciencia y Deporte</i> | JCI-JCR-Q4 (Hospitality, Leisure, Sport & Tourism) SJR-Q3 (Health - Social Science) | Spain | Spanish, English | Man |
| <i>Curriculum Studies in Health and Physical Education</i> | SJR-Q1 (Education) | United States | English | Man |
| <i>Educación Física y Ciencia</i> | JCI-JCR-Q4 (Education & Educational Research) | Argentina | Spanish, English, Portuguese | 1 Woman 2 Men |
| <i>European Journal of Physical and Health Education</i> | SJR-Q4 (Education) | Poland | English, Spanish, Portuguese | Man |
| <i>European Physical Education Review</i> | JIF-JCR-Q1 (Education & Educational Research) SJR-Q1 (Education) | United Kingdom | English | Man |
| <i>Facta Universitatis Series Physical Education and Sport</i> | SJR-Q3 (Orthopedics and Sports Medicine) | Serbia | English | Man |
| <i>Journal of Physical Education</i> | SJR-Q4 (Education) | Brazil | English, Portuguese | 2 Men |
| <i>Journal of Physical Education, Recreation and Dance</i> | SJR-Q3 (Education) | United Kingdom | English | Man |
| <i>Journal of Teaching in Physical Education</i> | JIF-JCR-Q1 (Education & Educational Research) SJR-Q1 (Education) | United States | English | Man |
| <i>Journal of Physical Education and Sport</i> | SJR-Q3 (Sports Science) | Romania | English | Man |
| <i>Measurement in Physical Education and Exercise Science</i> | JIF-JCR-Q2 (Education & Educational Research) SJR-Q2 (Sports Science) | United States | English | Man |

Table 1 (Continuation)*Gender of editors-in-chief and main features of physical education journals.*

| Journal | Indexation (category) | Region | Language(s) | Editor(s)-in-Chief |
|--|--|----------------|------------------------------|--------------------|
| <i>Motriz. Revista de Educação Física</i> | SJR-Q4 (Social Sciences) | Brazil | English, Portuguese | Woman |
| <i>Movimento. Revista de Educação Física</i> | JCI-JCR-Q4 (Education & Educational Research) SJR-Q3 (Education) | Brazil | Portuguese, Spanish, English | Man |
| <i>Pedagogy of Physical Culture and Sports</i> | JCI-JCR (quartile not available) (Hospitality, Leisure, Sport & Tourism) | Ukraine | English | Man |
| <i>Physical Education and Sport Pedagogy</i> | JIF-JCR-Q1 (Education & Educational Research) SJR-Q1 (Education) | United Kingdom | English | Man |
| <i>Physical Education of Students</i> | JCI-JCR-Q2 (Education & Educational Research) | Ukraine | English | Man |
| <i>Quest</i> | JIF-JCR-Q2 (Education & Educational Research) SJR-Q1 (Education) | United States | English | Man |
| <i>Retos. Nuevas Tendencias en Educación Física, Deportes y Recreación</i> | JCI-JCR-Q4 (Hospitality, Leisure, Sport & Tourism) SJR-Q3 (Education) | Spain | Spanish, English, Portuguese | Woman |
| <i>South African Journal for Research in Sport, Physical Education and Recreation</i> | SJR-Q4 (Education) | South Africa | English | Woman |
| <i>Sport, Education and Society</i> | JIF-JCR-Q1 (Education & Educational Research) SJR-Q1 (Education) | United States | English | Man |
| <i>Sportis. Revista Técnico-Científica del Deporte Escolar, Educación Física y Psicomotricidad</i> | JCI-JCR-Q3 (Education & Educational Research) | Spain | Spanish, English | Man |
| <i>The Physical Educator</i> | JCI-JCR-Q3 (Education & Educational Research) | United States | English | Man |
| <i>Viref-Revista de Educación Física</i> | JCI-JCR-Q4 (Education & Educational Research) | Colombia | Spanish, English | 4 Men |

Discussion

This study aimed to evaluate female representation in the EiC position at PE journals. Findings showed that women comprised a minority of EiCs across the 25 PE journals examined. Only 5 PE journals (20%) listed women as their EiCs. These results supported women underrepresentation in EiC position in the same line with others recent studies in fields such as medicine (Pinho-Gomes et al., 2021), dermatology (Lobl et al., 2020), surgery (Ehrlich et al., 2021) or sport sciences (Martínez-Rosales et al., 2021; Ortega et al., 2015).

Gender disparities in authorship and h-index could be spreading to the appointment of EiC position (Ehrlich et al., 2021). In this context, science and gender equality is one of the major themes included in the 2030 Agenda for Sustainable Development (Goal 5: 'Achieve gender equality and empower all women and girls'). Key targets include ensuring equal opportunities for women's participation and leadership. Despite a lower number of females enrolled in PE university programs (Abt et al., 2021; Serra et al., 2021), gender-equity policies should be promoted in PE research.

Some potential areas for intervention have been identified to facilitate the growth of women in scientific research. For example, improve women's professional networks or implement female mentorship pipeline programs to avoid the gradual decrease in the presence of women in the academic career (Ehrlich et al., 2021). On the other hand, the journals should also implement proactive strategies, eliminating unconscious barriers and advocating for transparency in the selection processes of the EiCs (Hafeez et al., 2019). A joint effort from editorial boards in PE journals must be done to address this gender gap. Hegemonic masculinity remains an enduring challenge.

Finally, these descriptive findings limit inferences related to causality, so they should be interpreted with caution. Future studies could adopt a more qualitative or mixed methods in order to explain gender inequalities.

Conclusion

Gender disparities are evident in the EiC position at the PE discipline. Gathering and reporting data on male-female representation in the EiC position is a necessary first step to move towards a more equitable scientific community. Actions are recommended to promote equitable gender representation in the EiC roles in PE journals. Proactive strategies should be designed to achieve a greater representation of women and more egalitarian scenarios (gender parity). A more gender diversity in editorial boards might create a publishing environment that could reduce the bias in how papers are selected and approved in the PE discipline.

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