


How international are the editorial boards in the field of foot and ankle surgery?

A STROBE-compliant cross-sectional study

Zhiwei Jia, MD^a, Donghua Liu, MS^a, Jiao Xu, MS^a, Qiang Wang, MS^a, Shi Yin, MS^a, Longyu Zhang, MS^a, Xingxuan Li, MS^a, Bo Qian, MSN^a, Yaohong Wu, MD^b, Tianlin Wen, MD^{a,*} 

Abstract

Very low proportions of publications from low- and middle-income countries (LAMIC) have been proved in multiple fields. Some researchers from these countries believe that there is a biased attitude of editors against their studies. Under-representation of editorial board members from LAMIC were revealed in many research fields. However, it has not been investigated in the field of foot and ankle surgery. The current study aimed to analyze the composition of the editorial board members in leading foot and ankle journals, and to provide the international representation of editorial boards in the field of foot and ankle surgery. Five leading journals in the field of foot and ankle surgery were included. The editorial board members were collected from the official websites of these journals. The countries of board members were classified based on World Bank. The board compositions of the journals were analyzed. In total, 229 editorial board members were identified. These editors were from 29 countries. The United States (29.69%) had the greatest number of editors, followed by the United Kingdom (20.52%), Australia (8.30%), Italy (6.11%), and Germany (5.68%). When the editors were classified by regions, 49.34% of board members were from Europe & Central Asia, followed by North America (31.44%), East Asia & Pacific (14.41%), Latin America & Caribbean (2.62%), and Middle East & North Africa (2.18%). No editors were from South Asia and Sub-Saharan Africa. A total of 217 editors (94.76%) were from high-income countries, followed by upper-middle-income countries (3.06%), and lower-middle-income countries (2.18%). No members were from low-income countries. There is a lack of international representation on editorial boards of leading foot and ankle journals. Editorial board members in the field of foot and ankle surgery are largely composed by editors from high-income countries with severe under-representation of LAMIC.

Abbreviations: FAC = Foot and Ankle Clinics, FAI = Foot & Ankle International, FAS = Foot and Ankle Surgery, GNI = Gross National Income, HIC = high-income countries, JFAR = Journal of Foot and Ankle Research, JFAS = Journal of Foot & Ankle Surgery, LAMIC = low- and middle-income countries, LIC = low-income countries, LMIC = lower-middle-income countries, UMIC = upper-middle-income countries.

Keywords: editorial board, foot and ankle surgery, publication

1. Introduction

Over the past decades, there have been tremendous progresses in the foot and ankle surgery.^[1,2] The number of surgeons and surgeries is steadily increasing in this field.^[1] Publications play vital roles in the development of clinical and basic research, new knowledge sharing, and guiding surgeons to their treatments for the patients.^[3–8] Global research output regarding the foot and ankle research shows an increasing tendency.^[1,2] The countries' contributions to the foot and ankle research are different due to different economy statuses, medical policy, and research program.^[1,2] Low- and middle-income countries (LAMIC) with

over 80% of the world population live, face the greatest burden of diseases.^[2] However, it has been reported that LAMIC only published 9.65% of articles in the leading foot and ankle journals.^[2]

Scientists from LAMIC perceive that it is difficult to publish their works in reputable medical journals.^[4,9–11] Some factors are thought to be the causes of the low productivities from LAMIC, such as insufficient fundings, inexperienced investigators, and something to the effect of the requirement of many journals to use colonial languages like English.^[4,12–16] In addition, international representation of editorial board members may be 1 of the factors and attracts increasing

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^a Department of Orthopedics, Dongzhimen Hospital, Beijing University of Chinese Medicine, Beijing, China, ^b Department of Spine Surgery, Ganzhou People's Hospital, Ganzhou, China.

* Correspondence: Tianlin Wen, Department of Orthopedics, Dongzhimen Hospital, Beijing University of Chinese Medicine, No. 5, Haiyuncang Road, Beijing 100700, China (e-mail: wentianlin@bucm.edu.cn) and Yaohong Wu, Department of Spine Surgery, Ganzhou People's Hospital, No 16, Meiguan Road, Ganzhou 341099, China (e-mail: wuyahong1986@hotmail.com).

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attentions.^[13,14,16,17] It has been proved that greater representation of editorial boards is correlated with more publications of work from LAMIC in leading biomedical journals.^[18] The board composition of a journal is an objective index to assess the international representation of editorial boards.^[12-15,19] Serious under-representation of editorial board members from LAMIC were proved in general medical journals.^[15] A survey indicates that researchers from LAMIC believe that a biased attitude of editors from high-income countries (HIC) against their work may lead to the under-representation of LAMIC authors in publications.^[19] The under-representation of editors from LAMIC was also found in multiple medical fields,^[20-23] such as pharmacy,^[6] psychiatry,^[13] spine,^[14] and neurology.^[9] However, whether this phenomenon exists in the field of foot and ankle surgery is remain unknown.

Analyzing the international representation of editorial board members may be very important in the field of foot and ankle surgery. Although the field of foot and ankle surgery is rapidly growing in orthopedics in HIC, this specialized field may not exist in many LAMIC.^[1,2] Some international journals aim to promote foot and ankle knowledge throughout the world.^[6,12,13] However, the very small number of editors from LAMIC in the leading foot and ankle journals probably does not send an encouraging signal to researchers and surgeons in these countries to join in the international scientific community.^[6,13,14] Moreover, it may potentially have negative effects on their knowledge sharing which is generated in LAMIC.^[3,6,17,21] Therefore, the present study aimed to analyze the composition of the editorial board members in leading foot and ankle journals, and to reveal the international representation of editorial boards in the field of foot and ankle surgery.

2. Methods

This is a cross-sectional study based on similar studies in other fields.^[6,12-14,20,21] No approval of Institutional Reviewed Board was needed due to not involving human and animals in this study. Journal Citation Reports for the year 2021 was used to identify subspecialty foot and ankle journals.^[12-14] Five high-impact journals were included in this study (Table 1). These journals included *Foot & Ankle International* (FAI), *Journal of Foot and Ankle Research* (JFAR), *Foot and Ankle Surgery* (FAS), *Foot and Ankle Clinics* (FAC), and *Journal of Foot & Ankle Surgery* (JFAS).

The official websites of the journals were reviewed on August 15, 2022. The editors listed in the editorial board of the journals were included. Ancillary editors such as editorial managers were excluded in this study. The country affiliations of the included editors were collected from the journals' websites. The editorial positions of editorial board members were not extracted. We investigated the geographical distributions of editorial board members in terms of their countries. The countries were classified into 7 regions according to the World Bank (www.worldbank.org), including Europe & Central Asia, North America, East Asia & Pacific, Latin America & Caribbean, Middle East

& North Africa, South Asia, and Sub-Saharan Africa. The world map was used to depict the geographical distributions of the editors.

We further analyzed the countries based on their economic status. The World Bank (www.worldbank.org) classified countries into 4 income groups, including low-, lower-middle, upper-middle, and high-income countries by Gross National Income (GNI).^[6,12-14,20,21] Low-income countries (LIC) were defined as those with a GNI per capita, of \$1085 or less. Lower-middle-income countries (LMIC) were those with a GNI per capita between \$1086 and \$4255. Upper-middle-income countries (UMIC) were those with a GNI per capita between \$4256 and \$13,204. HIC were those with a GNI per capita of \$13,205 or more.

The current study aimed to provide the trends, not to test hypotheses with the relative importance of editors form different counties. Hence, only descriptive statistics (e.g., sum and proportion) were analyzed.

3. Results

In total, 229 editorial board members were identified in the 5 foot and ankle journals. These members were from 29 countries, including 23 HIC, 3 UMIC, and 3 LMIC. The world map showed the geographic distributions of editorial board members (Fig. 1). The United States (29.69%) had the greatest number of editorial board members, followed by the United Kingdom (20.52%), Australia (8.30%), Italy (6.11%), and Germany (5.68%).

Three of the 5 journals, including FAI, FAC, and JFAS, were from the United States. The other 2 journals, including JFAR and FAS, were from England and France, respectively. The proportions of editorial board members classified by regions are shown in Figure 2. Regarding to FAI, the editorial board members were from 4 regions. North America was the leading region (73.68%), followed by Europe & Central Asia (14.04%), East Asia & Pacific (8.77%), and Latin America & Caribbean (3.51%). Regarding to JFAR, the editorial board members were from 3 regions. Europe & Central Asia was the leading region (56.36%), followed by East Asia & Pacific (40.00%), and North America (3.64%). Regarding to FAS, the editorial board members were from 5 regions. Europe & Central Asia was the leading region (80.22%), followed by East Asia & Pacific (6.59%), Middle East & North Africa (5.49%), North America (4.40%), and Latin America & Caribbean (3.30%). Regarding to FAC, the editorial board members were from 2 regions. North America was the leading region (75.00%), followed by Latin America & Caribbean (25%). Regarding to JFAS, the editorial board members were from 2 regions. North America was the leading region (95.45%), followed by Europe & Central Asia (4.55%). In total, 49.34% of board members were from Europe & Central Asia, followed by North America (31.44%), East Asia & Pacific (14.41%), Latin America & Caribbean (2.62%), and Middle East & North Africa (2.18%). No editors were from South Asia and Sub-Saharan Africa.

The editorial board members classified by income groups are shown in Figure 3. Regarding to JFAR and JFAS, all the editorial board members were from HIC. Regarding to FAI, 96.49% of the members were from HIC, followed by UMIC (3.51%). Regarding to FAS, 90.11% of the members were from HIC, followed by LMIC (5.49%), and UMIC (4.40%). Regarding to FAC, 75% of members were from HIC, followed by UMIC (25%). In total, 94.76% of members were from HIC, followed by UMIC (3.06%), and LMIC (2.18%). No editors were from LIC.

4. Discussion

To our knowledge, this is the first attempt to investigate the international representation of editorial board members in the field of

Table 1
Foot and ankle journals included in this study.

Journal title	Abbreviation	Impact factor
Foot & Ankle International	FAI	3.569
Journal of Foot and Ankle Research	JFAR	3.050
Foot and Ankle Surgery	FAS	2.840
Foot and Ankle Clinics	FAC	2.030
Journal of Foot & Ankle Surgery	JFAS	1.345

FAC = foot and ankle clinics, FAI = Foot & Ankle International, FAS = Foot and Ankle Surgery, JFAR = Journal of Foot and Ankle Research, JFAS = Journal of Foot & Ankle Surgery.

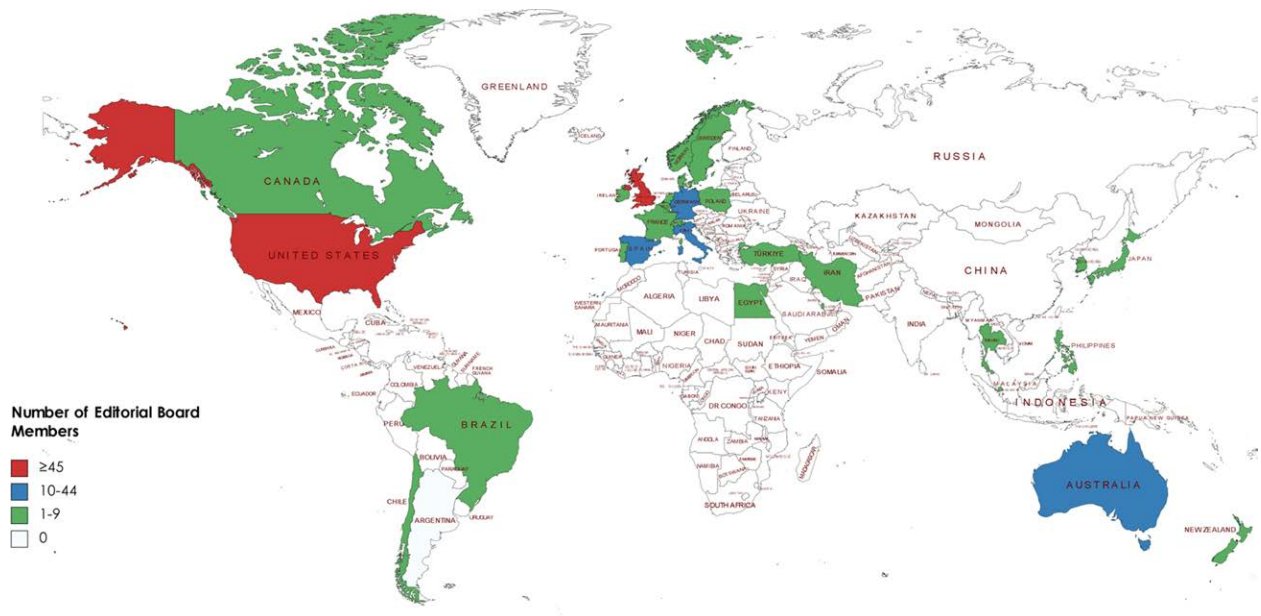


Figure 1. The countries of editorial board members.

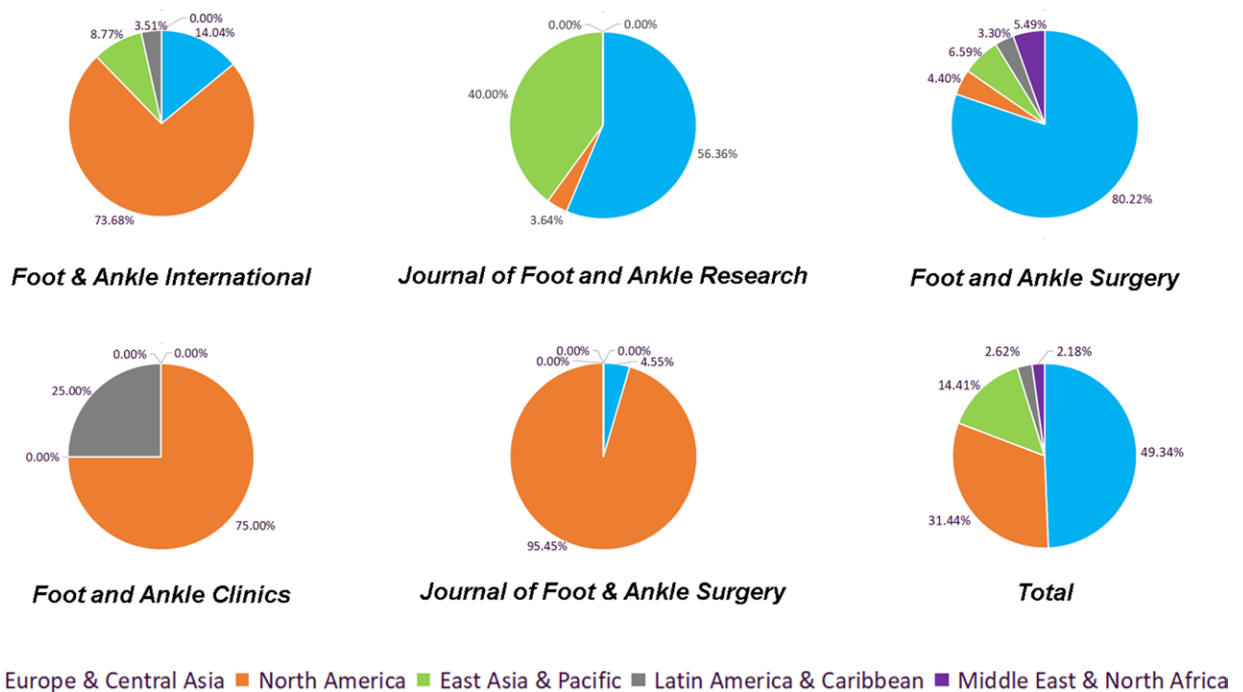


Figure 2. The editorial board members classified by regions.

foot and ankle surgery. This study investigated the composition of editorial board members in 5 leading foot ankle journals. The United States was the leading country according to the number of editors, followed by the United Kingdom, Australia, Italy, and Germany. The largest number of editorial board members were from Europe & Central Asia, followed by North America, East Asia & Pacific, Latin America & Caribbean, and Middle East & North Africa. However, no editors were from South Asia and Sub-Saharan Africa. The majority of editors were from HIC, while only a very small number of editors were from LAMIC.

Our study revealed that the editorial board members of the leading foot and ankle journals were mainly from a few countries. The top 5 countries include the United States, the United

Kingdom, Australia, Italy, and Germany. More than seventy percent of the total members are from the top 5 countries. There may be a need to increase the international representation of editorial board members to construct the personality and policy of the foot and ankle journals. [5,6,12-14,20,21]

This study found that the editorial boards were not widely distributed worldwide. Europe & Central Asia and North America had more than 80% of the total editorial board members. This may be because all the top 5 countries are located in these 2 regions. The majority of the editorial board members are from these countries. Therefore, the extremely imbalance distributions should be noted by the community of the foot and ankle surgery. [5,6,12-14,20,21]

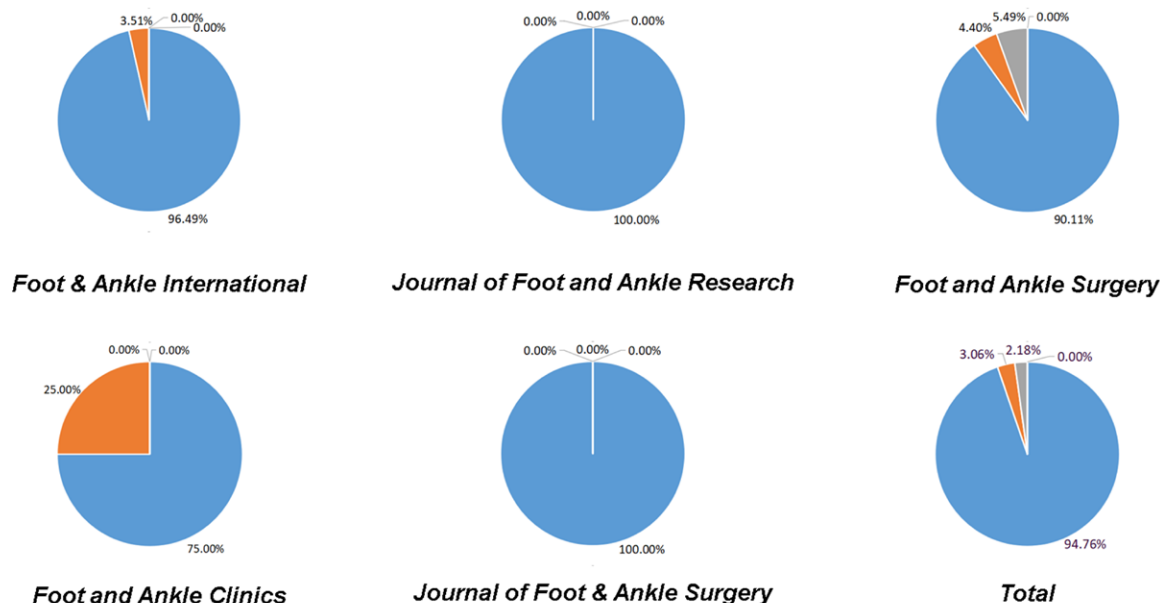


Figure 3. The editorial board members classified by gross national income.

The current study demonstrated that nearly 95% of editorial board members of the top 5 foot and ankle journals were from HIC, with a few editors from middle-income countries and none editors from LIC. Therefore, under-presentation of editorial board members from LAMIC is proved in the field of foot and ankle surgery. This result is similar with the others fields.^[5,6,9,12-16,19-21] Although the LAMIC have far more populations and subsequent the much more patients than HIC, the proportion of editorial board members is very low in the leading foot and ankle journals. This may not help to encourage the submission from investigators in LAMIC.^[12-14,19,24] Subsequently, less publications from LAMIC may cause less research activities on the disease in LAMIC from the global investigators, especially those from HIC with the greatest power in research output.^[3,5,12-15,17,19,21,24,25] Moreover, when the members from LAMIC normalized by their large populations, the relative proportion of LAMIC will be much lower.^[12-14]

Three (FAI, FAC, and JFAS) of the 5 journals are from the United States, and the other 2 journals (JFAR and FAS) are from the Europe. Interestingly, the highest proportions of the editorial board members of FAI (73.68%), FAC (75%), and JFAS (95.45%) are from North America, while those of JFAR (56.36%) and FAS (80.22%) are from the Europe. These findings suggest that these 5 journals have a tendency to appoint editorial board members from their regions despite they are international journals in the field of foot and ankle surgery.^[12-14] This phenomenon must be recognized by the journals.

The present study aimed to investigate the composition of the editorial board members of the foot and ankle surgery. The under-representation of LAMIC is proved in the present study. However, whether the editorial bias exists in the field of foot and ankle surgery remain unclear despite the low proportion of the editorial board members from LAMIC. The diversity of editorial board members may help to promote diverse and balanced perspectives.^[12-14,19,24] The imbalance composition of editorial board members might form an inherent bias.^[6,12-16,19-21,24] It may cause more publications regarding to the disorders in HIC, and less papers on health cares in the LAMIC.^[2,3,12-14] A lack of representation of LAMIC must be noted by the journals and the community of foot and ankle surgery. These leading journals

have the responsibility to take the leading role to diminish the potential bias.^[2,3,12-14,19,24] A well-balanced editorial board from diverse geographical regions across a range of income groups may play a vital role in the progress of the foot and ankle surgery.^[12-14,19,21,24] Some measures, including more members from LAMIC, and taking turn the editors among diverse countries, may be needed in the future.^[6,12-14,16,20,24]

Some limitations may exist in the current study. First, language bias should be inevitable due to the included journals were only published in English.^[12-14,24] Second, the number of the included journals is small.^[6,14,20,21] Nevertheless, the 5 high-impact foot and ankle journals could represent main international journals in the field of foot ankle surgery. Third, this is a cross-sectional study representing only 1 point in time. This study does not reflect changes over time. Forth, it should be acknowledged that foot and ankle surgery as a specialized filed does not exist in many LAMIC. However, this fact cannot account for the potential for fewer applications to become editorial board members from investigators in LAMIC.

5. Conclusion

This study foremost investigates the compositions of editorial board members in the field of foot and ankle surgery. There is a lack of international representation on editorial board members in the leading foot and ankle journals. Editorial boards are largely composed by members from HIC with sever under-representation from LAMIC in the field of foot and ankle surgery.

Author contributions

- Conceptualization:** Zhiwei Jia, Tianlin Wen, Yaohong Wu.
- Data curation:** Zhiwei Jia, Donghua Liu, Qiang Wang.
- Formal analysis:** Jiao Xu, Longyu Zhang, Shi Yin.
- Investigation:** Bo Qian.
- Methodology:** Xingxuan Li.
- Project administration:** Jiao Xu, Qiang Wang.
- Resources:** Shi Yin, Bo Qian.
- Supervision:** Tianlin Wen, Yaohong Wu.

Visualization: Longyu Zhang, Shi Yin.

Writing – original draft: Zhiwei Jia, Donghua Liu, Qiang Wang.

Writing – review & editing: Tianlin Wen, Yaohong Wu.

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