

## Osteopathic Physicians on the Editorial Boards of Major Medical Journals Over the Past 30 Years

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**Context:** With the recent merger of the American Osteopathic Association and the Accreditation Council for Graduate Medical Education, new standards may be established for scholarly activity criteria and designation for each specialty.

**Objective:** To determine the percentage of osteopathic physicians on editorial boards in general and specialty medical journals and to compare the participation of osteopathic vs allopathic physicians and other health care researchers in editorial activities.

**Methods:** The number of osteopathic and allopathic physicians and other health care professionals serving as editor in chief, associate editor, editorial board member, emeritus editor, or in other editorial positions was examined in 8 major medical journals (*New England Journal of Medicine*, *JAMA*, *Annals of Internal Medicine*, *Annals of Surgery*, *Annals of Emergency Medicine*, *Annals of Family Medicine*, *Obstetrics and Gynecology*, and *Pediatrics*) published during the past 30 years.

**Results:** The number of editorial board positions increased during the past 30 years, with *Annals of Surgery* adding the most positions (64). When compared with allopathic physicians in all fields of medicine, the number of osteopathic physicians serving on an editorial board of a medical journal was significantly less ( $P < .001$ ). When all editorial positions were combined, osteopathic physicians occupied 0.15% of all positions.

**Conclusion:** A disparity exists between the numbers of osteopathic vs allopathic physicians in editorial positions in the core disciplines of medicine. Further investigation into the reasons why few osteopathic physicians serve in editorial roles is needed.

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More than 130 years ago, Andrew Taylor Still, MD, DO, founded osteopathic medicine. During the past 80 years, the number of osteopathic physicians has increased greatly.<sup>1</sup> In 1935, 8265 osteopathic physicians practiced in the United States compared with more than 87,000 in 2013.<sup>1</sup> Currently, more than 50% of all osteopathic physicians in American Osteopathic Association (AOA)-accredited residencies are in primary care (family practice, internal medicine, pediatrics, and obstetrics and gynecology).<sup>1</sup> However, little research has been devoted to how osteopathic physicians climb the academic ranks.

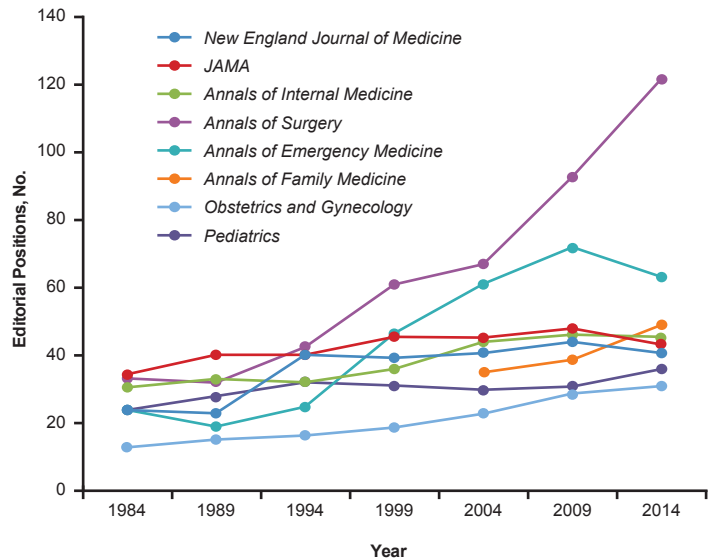
Advancement in the medical academic community is most notably based on one's contribution to the medical literature and the journal responsibilities that one possesses.<sup>2,3</sup> Editorial board nominations are based on academic rank, research, publications, and awards, and those appointed are promoted based on the recognition that they receive.<sup>2,3</sup>

In this study, we sought to investigate whether a disparity exists in the number of osteopathic physicians serving on editorial boards as compared with their allopathic counterparts.

## Methods

Two general medical journals (*New England Journal of Medicine* and *JAMA*) and 6 medical specialty journals (*Annals of Internal Medicine*, *Annals of Surgery*, *Annals of Emergency Medicine*, *Annals of Family Medicine*, *Obstetrics and Gynecology*, and *Pediatrics*) were chosen based on the curriculum of approved first-year osteopathic graduate medical education training as developed by the AOA and impact factor (*Figure*).<sup>4</sup> The editorial titles and credentials of the individuals holding those titles were obtained from the mastheads from each journal for the years 1984, 1989, 1994, 1999, 2004, 2009, and 2014. Editorial positions such as deputy editor, section editor, consulting editor, assistant editor, senior associate editor, and any other title that used the heading “editor” were included. The credentials of the editors in chief, associate editors, emeritus editors, and members of the editorial board were determined on the basis of the suffix after each member’s last name. For those members whose credentials could not be determined from the mastheads, an Internet search was performed to determine the credentials. If the search was also unsuccessful, the credentials were listed as indeterminate. Advanced degrees other than DOs or MDs were listed as “other.” All attempts were made to remove the editorial publishing staff from inclusion in the final analysis.

Descriptive statistics with percentages were used to determine the number of health care professionals and other health care researchers in each category. A *t* test was used to compare the number of allopathic vs osteopathic physicians serving an editorial role.



**Figure.** The total number of editorial positions in major medical journals during the past 30 years.

## Results

A total of 2058 individuals who held editorial positions on the editorial boards of the 6 journals were included in the analysis. Of 2058 editorial positions, 1921 (93.3%) were held by allopathic physicians, followed by other health care professionals (134 [6.5%]) and osteopathic physicians (3 [0.15%]). Statistical significance was seen when comparing the number of allopathic editors vs osteopathic editors ( $P < .001$ ). All of the 49 editor-in-chief positions were held by allopathic physicians, and 1176 of 1256 editorial board members (93.6%) were allopathic physicians (*Table*). Among the general and specialty journals reviewed, *New England Journal of Medicine*, *Annals of Emergency Medicine*, and *Pediatrics* employed an osteopathic physician on the editorial staff, with 2 of the 3 having positions categorized as “other” and 1 serving on the editorial board.

Over the years, all editorial boards expanded in size (*Figure*). *Annals of Surgery* had the largest expansion over time, with their editorial board growing by 64 positions between 1984 and 2014.

**Table.**  
**Editorial Positions of Major Medical Journals**  
**Held by Physicians in Different Specialties**  
**During the Past 30 Years<sup>a</sup>**

Editorial Position	Allopathic	Osteopathic	Other
Editor in chief (n=49)	49 (100)	0	0
Associate editor (n=241)	214 (88.8)	0	27 (11.2)
Editorial board (n=1256)	1176 (93.6)	1 (<1.0)	78 (6.3)
Emeritus (n=126)	122 (96.8)	0	4 (3.2)
Other editor (n=375)	348 (92.8)	2 (<1.0)	25 (6.7)

<sup>a</sup> Data are given as No. (%).

## Discussion

To our knowledge, the current study is the first to directly investigate the number of osteopathic physicians serving on editorial boards. Despite being a “parallel profession” to allopathic medicine, there is a dramatic disparity in the number of osteopathic physicians serving on editorial boards compared with allopathic physicians.<sup>5</sup> The total number of editorial positions has grown over the past 30 years; however, few osteopathic physicians have served in these roles.

Research has shown that osteopathic physicians provide a disproportionately larger share of primary care compared with allopathic physicians and even more so when the rural population is considered.<sup>6</sup> However, their participation in primary care editorial activities in the United States is lacking. The current study found that 1 osteopathic physician served on the editorial board of a major primary care specialty journal.

There are several possible explanations for the underrepresentation of osteopathic physicians on editorial boards. Previous literature has shown that osteopathic emergency physicians, for example, rarely

publish articles in high-impact emergency medicine journals and, if the data hold true for other specialties, fewer osteopathic physicians would be expected to climb the academic ranks.<sup>7</sup> Also, allopathic medical schools receive more funding that can be spent on research and development compared with osteopathic medical schools.<sup>8</sup> Allopathic researchers, therefore, have a better chance of academic development through increased opportunities in editorial activities. Furthermore, the focus of osteopathic medical schools is different from that of allopathic medical schools, with a greater emphasis on patient-oriented care vs disease-oriented care. Nearly half of osteopathic medical students surveyed by the American Association of Colleges of Osteopathic Medicine noted that an inadequate amount of time was devoted to learning research techniques, cost-effective medical practices, literature analysis skills, and biostatistics during their osteopathic medical training.<sup>9</sup> Finally, few osteopathic physicians hold a doctor of philosophy (ie, PhD) or a master’s degree.<sup>10</sup> In these programs, candidates undergo extensive training in research and are able to publish 1 or more studies during their training. With continued publication, PhD researchers are able to advance more quickly through the academic hierarchy and achieve editorial positions and promotions along this avenue.

## Limitations

A major limitation of the current study is that 1 journal from each subspecialty was examined. If more journals from each subspecialty were examined, the number of osteopathic physicians in editorial roles may have been higher. We also cannot comment on the years that were not studied, during which osteopathic physicians may have served on the editorial boards included in the study. Also, the journals that were selected were mainly pay-for-membership journals; therefore, the total number of osteopathic physicians participating in each specialty’s editorial activity may not be accurately represented.

## Conclusion

Although the number of editorial positions has increased over the past 3 decades, few osteopathic physicians have served an editorial role. Future studies need to examine more closely each subspecialty's trend in editorial board positions as well as reasons why osteopathic physicians are less likely to serve an editorial role.

## Author Contributions

All authors provided substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; all authors drafted the article or revised it critically for important intellectual content; all authors gave final approval of the version of the article to be published; and all authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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