

Virtual Mentor

American Medical Association Journal of Ethics
July 2008, Volume 10, Number 7: 444-446.

JOURNAL DISCUSSION

Closing the Gender Gap in Medical Journal Publishing

Allison Grady

Jagsi R, Guancial EA, Worobey CC, et al. The ‘gender gap’ in authorship of academic medical literature—a 35-year perspective. *N Engl J Med.* 2006;355(3):281-287.

Medicine, like other professions, has traditionally been dominated by men. Although women now make up 49 percent of incoming medical students [1], it is still unusual to find them in the highest positions of academic leadership. In a 2006 article entitled “The ‘Gender Gap’ in Authorship of Academic Medical Literature—A 35-Year Perspective,” published in the *New England Journal of Medicine*, Reshma Jagsi and colleagues reported on their collected information about the sex of the first and last authors published in six peer-reviewed professional journals. This data served as the benchmark to measure success for women in academic medicine [2].

Jagsi et al. began by identifying the first and last authors of all original articles published at 10-year intervals from 1970-2000 and 2004 in *New England Journal of Medicine*, *Journal of the American Medical Association*, *Annals of Internal Medicine*, *the Annals of Surgery*, *Obstetrics & Gynecology*, and *Journal of Pediatrics* [3]. They determined the sex of the contributor by inspection and, when necessary, by locating biographical information on the Internet [3]. The investigators also made note of the graduate degrees and institutional affiliations of each author [3]. Ultimately only MD-trained, American-based authors who wrote original articles or published on original research in one of the six journals, or served as a guest editorialist for the *New England Journal of Medicine* or *Journal of the American Medical Association* were included.

The researchers found that, of the 7,249 articles published, 15.9 percent of the first authors and 10.3 percent of the senior authors were women [4]. When the data were broken down by year, Jagsi et al. found that the percentage of female principal investigators rose annually over the 34-year span from 5.9 percent to 29.3 percent [4]. The percentage of women who served as senior authors rose over the same time span from 3.7 to 19.3 percent [4]. When the data were arranged by specialty, the proportions of first and senior female authors increased most dramatically in obstetrics and gynecology and pediatrics [4]. The specialty that showed the least growth in female publication was surgery.

Understanding the Gender Gap

The authors offer several possible explanations for the “gender gap” in medical publication. One reason they postulate is the scarcity of women in the highest leadership positions in medical schools. It is fair to infer, then, that the number of women who are qualified to publish at this level is low and that those who are able to, do. But it is also possible that the women who have reached this level are busy with other demands of the job and might focus their energies on non-research aspects of their teaching and personal lives.

The authors point out that women are not represented equally across the medical fields they studied. According to the Association of American Medical Colleges, women held 14 percent of full professorships in internal medicine, 24 percent of pediatric full professorships, 18 percent of ob/gyn, and a mere 7 percent of the surgery full professorships [5]. For all ranks of professorships, women comprise 30 percent of internal medicine, 45 percent of ob/gyn, 45 percent of pediatrics, and 14 percent of surgery [5]. These percentages bear out the authors’ observations that the specialties in which female physicians are better represented overall are those that have higher rates of women writers. These statistics also hint that female physicians “hit a ceiling”; they are competitive in lower level positions but do not advance to the more prestigious positions.

Next Steps

It would be interesting if a future study compared first and senior authors in dermatological, social science, and family practice journals, given that at least 38 percent of all physician-faculty in these categories are women [5]. Jagsi et al. note that the publishing gains for women may be reaching a plateau based on numbers between 2000 and 2004. I would caution that we not place too much emphasis on this trend. In 2006, of more than 2,200 promotions to associate professor, 33 percent were women and, of the over 1,400 new full professors, 25 percent were women [1]. These gains signal that women are still making significant strides in the profession and that in coming years we can expect to see more women authors and experts.

Overall, Jagsi and colleagues’ study is an interesting, albeit limited, one. Given the simple study design, it would be valuable to see this study repeated roughly every 10 years to monitor progress and bring awareness to journal editors and medical school leaders of what ought to be the growing influence of female physicians.

References

1. Association of American Medical Colleges. *Women in U.S. Academic Medicine. Statistics and Benchmarking Report, 2006-2007*. Washington, DC: AAMC; 2007.
http://www.aamc.org/members/wim/statistics/stats07/stats_report.pdf. Accessed June 12, 2008.
2. Jagsi R, Guancial EA, Worobey CC, et al. The ‘gender gap’ in authorship of academic medical literature—a 35-year perspective. *N Engl J Med*. 2006;355(3):281-287.
3. Jagsi, 282.

4. Jagsi, 283.
5. Association of American Medical Colleges. Distribution of faculty by department, rank, and gender, 2007. <http://www.aamc.org/members/wim/statistics/stats07/table03.pdf>. Accessed June 12, 2008.

Allison Grady is a senior research assistant and an editor of *Virtual Mentor* at the American Medical Association in Chicago. She will be pursuing a master's degree in nursing at Yale University beginning in the fall of 2008.

Related in VM

[Women in Medicine: Recognition and Responsibility](#), July 2008

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2008 American Medical Association. All rights reserved.