Gender data on 100 most-cited journal articles in Radiology, Pediatrics, Emergency Medicine and Surgery in year 2000 and 2010: Are we behind?

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Purpose

By studying and comparing authorship gender composition of the 100 most-cited papers in four major medical specialties (radiology, pediatrics, surgery and emergency medicine (EM)), we hope to shed light on how to promote more female physicians into leadership roles in academic medicine.
Methods/Statistics

100 most-cited US journal articles, from 2000 to 2010, in the fields of radiology, pediatrics, surgery and EM were identified using Web of Science Core.

Author names from each paper were analyzed for gender, and Pearson's chi-squared test was used to assess differences between years in the proportions of papers with (i) a female author in any position and (ii) a female first author.
Results for general female authorship

Female authorship of this subset of high-impact papers increased over time.

Female authorship was most common in pediatrics [85% (2000) and 91% (2010), p=0.19] and emergency medicine [56% (2000) and 81% (2010), p=0.0001].

Female authorship was least common in radiology [49% (2000) and 58% (2010), p=0.20] and surgery [53% (2000) and 48% (2010) with p=0.48].
Results for female first authorship

In terms of female first authorship, there was only a modest increase in the percentage of high-impact radiology publications with female first authors [17% (2000) and 24% (2010), P= 0.22].

There was a slight increase in emergency medicine [24% (2010) and 29% (2010), P=0.42].

There was no change across surgical papers [14% (2000) and 12% (2010), P=0.67]

Pediatrics showed a marked increase [40% (2000) and 62% (2010), P=0.0019].
Female first authorship in 2000 and 2010

Figure 1 Proportions of 100 most-cited papers from years 2000 and 2010 that have female first authors. Confidence bars represent 95% confidence intervals.
Conclusions

Although overall female authorship has increased in the last decade, radiology has fallen behind other major specialties, especially pediatrics.