



Letter to the Editor

Letter to the Editor in response to “Publication performance of women compared to men in German cardiology” by Boehm et al. (2014)

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ABSTRACT

Based on their review of abstracts submitted to the German Cardiac Society, Boehm et al. (2014) report better success of female vs male cardiologists publishing in journals with an impact factor ≥ 5 . However, only 25% of conference abstracts were submitted by women, perhaps suggesting a paucity of women in academic cardiology. In this 'letter to the editor' we review gender statistics in the medical field using Germany and the US as examples. While women are well represented in early career stages, only few full professors are women. This reflects a wasted opportunity to benefit from the best of both genders. Recent gender research has shown that subtle gender bias may play a role. To change the gender statistics in academic medicine a multifaceted approach is necessary. This will ultimately lead to a more equal representation of women in senior roles, and bring science, medical care, and leadership to a new level.

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We commend Boehm et al. for summarizing the publication performance in the field of Cardiology of women compared with men in Germany [1]. The authors report that of all abstracts submitted to the German Cardiac Society annual meetings between 2006 and 2010, abstract acceptance rates were similar between men and women following a blinded review process. A smaller proportion of women published their work in peer-reviewed journals, but they were more likely to publish in a journal with an impact factor ≥ 5 . However, only 25% of all abstracts submitted to the meeting were authored by female physicians/scientists.

This low percent is surprising given that 64% of medical school graduates in Germany are women as of 2012, and that even 10 years ago 54% were women. Upon completion of postgraduate medical training 50% are currently women, yet they represent only 17% of professors and 11% of department/division chiefs (2012 data from the Federal Statistical Office of Germany, Wiesbaden, provided by the German Medical Association, Berlin, Germany). This means there is an over 5-fold decline in representation of women from graduation from medical school to top leadership positions.

A similar though less dramatic trend is observed in the U.S. where 48% of all medical school graduates are women. While there is a relatively large proportion of women at the junior faculty level,

only 21% of full professors are women (Table 1, <https://www.aamc.org/members/gwims/statistics>). Based on these data, many women decide to stay in academic medicine following completion of post-graduate medical training, but only a few are promoted to the full professor level – despite evidence that men and women are equally engaged in their work and share similar leadership aspirations [2]. If it is not lack of motivation, or lack of ability [1], subtle gender bias may be a factor that is an impediment for women in academic medicine.

To understand further gender biases in the academic setting, Moss-Racusin et al. performed a psychological experiment in which faculty at leading universities in the U.S. were given identical materials of a student applying for a position as a laboratory manager [3]. The application was randomly assigned a male or female name. Both male and female faculty rated the male applicant as significantly more competent, and they were more likely to recommend hiring the male than the identical female applicant. They would also offer a higher starting salary and

Table 1

Percentage of women by specialty and academic rank in the U.S. (AAMC 2013/2014).

	Residents	Instructor	Ass. Prof.	Assoc. Prof.	Full Prof.
Pediatrics	71	75	60	48	31
Internal medicine	43	52	43	33	19
Surgery	38	46	27	18	10
Orthopedic surgery	14	27	19	13	7
Total	46	56	44	34	21

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more career mentoring to the male applicant. Thus, subtle gender bias against women by male and female faculty alike may contribute to the underrepresentation of women in academic sciences in many countries. To address this, some institutions have implemented training programs for faculty to help recognize subconscious gender bias, initiated an intervention for female faculty development, or created women faculty mentoring programs [4–6]. Increasing opportunities for women in science will ultimately lead to a more equal representation of women in leadership roles.

In conclusion, Boehm et al. report better publication success of female cardiologists for publishing in journals with an impact factor ≥ 5 from abstracts submitted to the German Cardiac Society annual meeting. We would like to emphasize that this 'success' should be seen in the context of only 25% of conference abstracts being submitted by women. Women in academic medicine continue to be underrepresented. This reflects a wasted opportunity to benefit from the capabilities of our best physicians and scientists, whether male or female [1]. To change the gender statistics in academic medicine a multifaceted approach is necessary. In the long run, having a more equal representation of the best of both genders will bring science, medical care and leadership to a new level.

Conflict of interest

The authors report no relationships that could be construed as a conflict of interest.

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