CRITICAL CARE

COMMENTARY

# Still a man's world, but why?

Ann Weinacker*[1] and Renee D Stapleton[2]

See related commentary by Metaxa, http://ccforum.com/content/17/1/112

**Abstract**

Women are generally under-represented in many academic medical settings. Through a brief commentary on this issue, the present article discusses possible explanations for this under-representation as well as potential solutions. Issues examined include women in leadership positions, attrition out of academic medicine, salary imbalance between men and women, potential bias among both genders, and the need for cultural change. We believe this is an extremely important issue of which we all need to be aware and hope that articles such as this will aid in starting a crucial conversation about gender issues in academic medicine.

In the present issue of *Critical Care* Dr Metaxa asks whether this is (still) a man's world [1]. In academic medicine, the answer is a disappointing 'yes'. Even in pediatrics and in obstetrics and gynecology, where women represent at least one-half of the faculty in US medical schools, the percentage of female full professors is less than 30% of the total professoriate. In all specialties combined, women comprise only 22% of permanent division or section chiefs and associate or vice chairs, and only 14% of permanent department chairs [2].

The bigger questions are why this is this true, and what can be done to increase the number of women in academic medicine and in leadership positions. The imbalance is clearly not due to a pipeline effect. In the 2011/12 academic year, 48% of US medical school graduates were women, and 44% of new recruits to academic positions were women. The imbalance is also not due to excess attrition of women out of academic institutions, as less than one-half (40%) of faculty members who left their academic positions in 2011/12 were women, representing 7% of the total female faculty [2].

According to a survey of former female and minority faculty at Virginia Commonwealth School of Medicine, the three most common reasons for leaving academic positions were career/professional advancement (30%), salary (26%), and leadership issues (22%) [3]. A similar survey of former Stanford University Medical School faculty who left the institution between 1999 and 2009 found that the major reasons why women leave academic positions are similar to the reasons why men leave: better professional opportunities, higher salary, personal/family reasons, lack of support (recognition, appreciation, and so forth), advancement or promotion-related concerns, and lack of critical resources for research (Sabine Girod, personal communication). Of the 74 survey respondents (a 56% response rate), 22 were women. Interestingly, women more often left for a higher salary or because of a lack of support or critical resources for research, and men more often left for better opportunities or for family reasons. The percentages of men and women at Stanford who left for reasons related to advancement or promotion were approximately equal.

In addition to under-representation of women in academic medical positions, the literature suggests that there is also an imbalance in salary. A recent study found that salaries for 2000–2003 National Institutes of Health K08 and K23 recipients are almost $33,000 lower for women than for men, even after adjustment for confounders such as age, race, academic rank, institution, publications, grant funding, and work hours [4]. Furthermore, US data also suggest that women are not promoted at the same rate as men [5,6].

These data raise concerns that bias on the part of employers and school leadership could play a major role in the under-representation of women in academic medicine, and this bias may exist among leaders of both sexes. A recent investigation of full-time faculty at 26 nationally representative US medical colleges reported inequalities in letters of recommendation, promotion and tenure, and opportunities of leadership for women, as well as feelings of isolation among women [7]. Another study found subtle biases from both male and female science faculty at research-intensive universities in favor

*Correspondence: AWeinacker@stanfordmed.org
[1]Stanford University School of Medicine, 300 Pasteur Drive, Room H3105, Stanford, CA 94305-5238, USA
Full list of author information is available at the end of the article

of male students, and demonstrated that these biases would result in a higher likelihood of being hired into a laboratory manager position, higher salaries, and more mentorship for male students [8].

Clearly there is a need for culture change in all areas of academic medicine, among both men and women. Educational programs to inform school leadership about biases, both subtle and overt, and concrete ways to avoid them are needed to improve mentorship, salary, and support for academic endeavors for women. Developing flexible working environments and timelines to promotion and tenure is important, but the perception of women that they are isolated and the reality of inequalities in advancement demonstrate that these efforts are inadequate. Programs to mentor women to help them write grants, prioritize goals, develop a complete and representative CV, and be appropriately self-promoting will help female faculty advance in their careers.

Women's organizations are important to allow women to discuss issues that may be unique to women and engender a sense of community among women, but these organizations may actually unintentionally make women feel more isolated and less a part of a bigger academic community. There must be efforts on the part of departmental and school leadership to make women feel they are valued members of the academic community and to encourage and support their advancement. Finally, women who have achieved promotion and leadership roles must take active and inclusive roles as role-models, advisors, mentors, and advocates for junior women in academic medicine. Women early in their careers need proof that there is light at the end of the academic tunnel.

**Competing interests**
The authors declare that they have no competing interests.

**Author details**
[1]Stanford University School of Medicine, 300 Pasteur Drive, Room H3105, Stanford, CA 94305-5238, USA. [2]University of Vermont College of Medicine, 149 Beaumont Avenue, HSRF 222, Burlington, VT 05405, USA.

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