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Association for Academic Surgery

Association for Academic Surgery presidential address: sticky floors and glass ceilings

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ABSTRACT

This 2017 Presidential Address for the Association for Academic Surgery was delivered on February 8, 2017. It addresses the difficult topic of gender disparities in surgery. Mixing empirical data with personal anecdotes, Dr. Caprice Greenberg provides an insightful overview of this difficult challenge facing the surgical discipline and practical advice on how we can begin to address it.

Having just heard from six of our past presidents about the remarkable history of this Association,[1-6] I would like turn our focus to the future. I think this is an amazing year for academic surgery. As the two presidents of the Society of University Surgeons (SUS) and Association for Academic Surgery (AAS), Rebecca Minter and I have a lot in common. Not only are we both clinicians who treat cancer, we are also both academics and researchers, we are both married to other surgeons, and we both have three children below the age of 10 years. In addition, we are both about to handoff the reins of our respective societies to other women. It is remarkable to think how far we have come as a discipline that, right now, both presidents and both president-elects of these major academic surgery societies are women.

You have probably gathered by now that the focus of this talk is women in surgery, and you are probably thinking this is going be one of those discourses about how to "have it all," or a call for high-quality childcare and paid maternity leave to level the playing field. On the contrary, I actually want to take this time to explain why that is the wrong conversation. We have been having the wrong conversation for a long time, and I think we need to start having the right conversation. We are a scientific association, and I am hoping to share with you some very convincing data—data that show we have a serious problem when it comes to gender equity in surgery.

Redirecting the conversation

The first thing we need to do is to stop focusing on parenting and childcare as women's issues. I had a unique opportunity to poll hundreds of women who happen to be both surgeons and mothers. I found 100% consensus that the current conceptualization of issues facing women in surgery are almost exclusively considered to relate to parenting and work-life balance. I want to suggest to you that parenting and other issues of work-life balance are critical for everyone, regardless of gender or parental status. This is especially true given the data on burn out with which we are all familiar. There are data to suggest that almost 70% of surgical trainees meet criteria for burn out.[7] Even among practicing surgeons, about 40% of us are burned out and over 30% would actually screen positive for depression.[8]

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There are other problems with equating women's issues with parenting. The first is that 40% of women surgeons do not have children and saying that the only problem is related to the balance with parenting is insensitive and distracts from their experience as female surgeons.[9] On the flip side, 92% of male surgeons do have children.[9] Many of them want to be involved with their families, but as we will see, there are major social forces that make this difficult enough without being told that parenting is a "women's issue." When we believe that parenting is solely the responsibility of women, it undermines men's desire to be actively engaged and feel ownership over this important part of their lives. Finally, it perpetuates gender schemas and gender roles which have a major impact on many aspects of our work life as we will discuss.

I do want to acknowledge that we have come an amazingly long way. There are so many successful female surgeons—here we are, represented so broadly at this meeting in the leadership of the AAS and SUS. In addition, explicit discrimination and sexual harassment have become less common, and when they do occur, they are simply not tolerated. It is precisely because we have made these great strides that we can start to focus on the more difficult, more deeply imbedded, and more nuanced problems.

The scope and etiology of gender disparities in surgery

Disparities in salary and advancement in surgery are pervasive, and because they are primarily due to violations of gender schemas and resultant implicit bias, they can be much harder to combat. It is going to take the entire surgical community to mobilize and combat these threats to equity. I think you know you are targeting an important topic when it is the topic of a Super Bowl commercial (see video at www.youtube.com/watch?v=G6u10YPk_34).[10]

So how big is this problem? How big is this problem in general, and how big is this problem in surgery? Figure is from an *Annals of Surgery* article reporting on the glass ceiling in 2011; it shows that as we go up the academic ladder, the number of women goes down.[11]

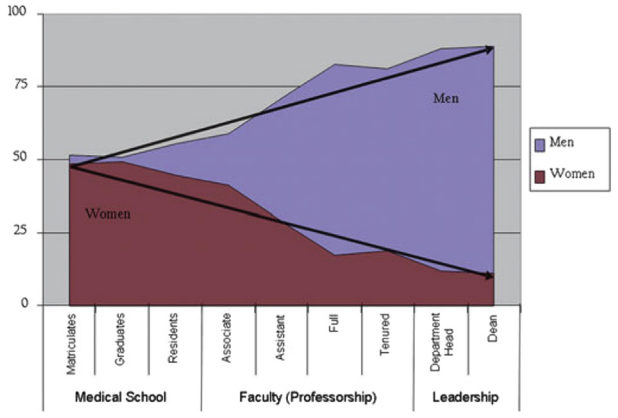

Figure – Gender and the surgical workforce: The proportion of women represented in the surgical workforce decreases across the spectrum of academic advancement. (Color version of figure is available online.) From: Zhuge, Annals of Surgery 2011; 253(4):637

Let us start by looking at the issues in residency. A 2012 study examined a cohort of physicians who graduated medical school between 1997 and 2002 and entered general surgery residency intending to become board certified.[12] When you look at the predictors of becoming board certified, sex was a more significant predictor than any other, except for advanced age when you graduate from medical school. Women made up about 30% of these classes. Only 54% of women ended up board certified in general surgery, compared to 63% of the men. Women were more likely to be board certified in other specialties—we all know women who left surgery to go into more accepting specialties—and women were more likely to not be certified in any specialty. So, why would that be?

I am going to share two studies done by remarkable female general surgery residents who are studying this problem. The first one comes from the FIRST trial and shows that women residents are more likely to be dissatisfied.[13] Not only are women dissatisfied with issues around their own well-being and health, but they are also dissatisfied with the state of surgery, including patient safety and resident education; this dissatisfaction can lead to disillusionment. Another study that won an SUS award at this meeting last year reported that women were more likely to be burned out, with an adjusted odds ratio of 1.6.[7] When asked if they had ever considered dropping out of residency, 50% of women said "yes." This is because being more burned out, more disillusioned, and feeling less included can make residency really difficult.

The other fascinating data from this study presented at last year's meeting involve the interaction between gender and home life. If a woman is single, she actually has less emotional exhaustion than if she is in a committed relationship or married. For men, the exact opposite is true. Being in a committed relationship is protective for men; they have lower emotional exhaustion, presumably because they get support from their spouses. The same pattern holds true when it comes to children. Women with children are more emotionally exhausted than women without children; while men with children are significantly less emotionally exhausted than those without. Again, home life—having that balance—helps men but creates a greater challenge for women.

What happens once women finish residency and enter the surgical workforce? A study published in *JAMA* in 2015 suggests that, problems in advancement exist.[14] This cohort study examined the academic rank in 2014 of physicians who graduated residency in 1980, 1990, and 2000. For people graduating in 1980—people who have in academic careers for 34 years—less than half of the women were full professors by 2014, compared to 61% of men. This discrepancy is not any better if you look at the 1990 or 2000 cohorts. And if we look at our own field of surgery, there is an 18 percentage point difference in the likelihood of being a full professor between men and women. Women also earn fewer grants from the National Institutes of Health (NIH), and the ones that we do earn are worth less money according to data published in *Nature*.[15] Qualitative analysis identified significant gender-based differences in the reviewer comments based on gender that may explain this variation.[16,17]