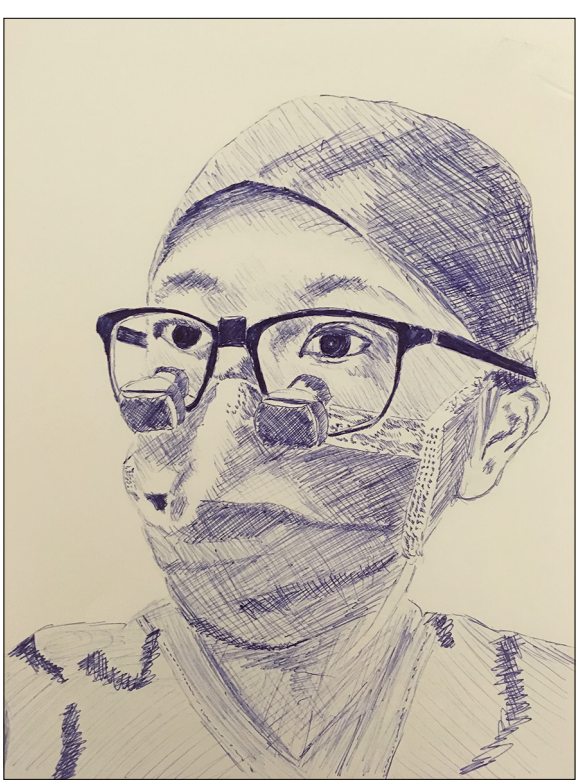
The art of medicine

A day in the life of a surgical intern: women in surgery

I wake up moderately rested for another day of work as a surgical intern, a first year resident doctor learning to care for patients. I mentally prepare myself for the day ahead. Morning rounds, ward management, clinic appointments, and perhaps I'll be able to squeeze into an operating room. Despite my planning for the day, I dwell mostly on my apprehensions about my abilities. Are my patients stable enough? Is my prioritisation of tasks safe and efficient? Am I learning enough? Am I good enough?

Why do I have these thoughts? The literature would suggest that despite equivalent performance as assessed by objective external measures, female surgical residents generally underestimate their abilities compared with their male counterparts. Yet, I also wonder, why am I even bringing gender into this at all?

The team has finished doing their rounds and I am left on the ward to handle hospital discharges and fix electrolytes. As I clean up after a drain removal, the young female patient remarks, "It is so great to see a woman pursuing such a difficult surgical career!" I am instinctively flattered by her compliment. Only as I leave her room do I wonder why she was so impressed to see a female surgeon in the first place.



Han Yan

Self-portrait of a surgeon in training

But then I reflect there aren't as many women in surgery as there are in other medical specialties. In 2015, the Association of American Medical Colleges reported that 19·2% of general surgeons in the USA were female, with other surgical specialties reporting lower percentages of females except obstetrics and gynaecology. Similarly, the UK Royal College of Surgeons reported 11·1% of consultant surgeons in England are female. Indeed, these numbers show a disparity, but what is the harm of this imbalance? I've discussed this issue with colleagues. Olufemi Ajani, McMaster Medical School neurosurgery programme director told me: "When female students turn away from neurosurgery because of perceived gender-based challenges instead of lack of interest, the neurosurgery field loses opportunities afforded by half the potential pool of candidates and the potential brilliance and innovation from that population." This raises the question of what those gender-based challenges are, and how they are being addressed in surgery. Personally, I do not think gender or ethnic quotas should be valued more than merit in promotion, and yet I find the low percentages of women in my field disheartening. All the various factors that contribute to this imbalance can be hard to delineate because it is difficult to quantify unconscious biases and even more difficult to study or analyse personal decisions to prioritise family or career. Nonetheless, I believe that qualitative analysis through anecdotes and individual narratives can be illuminating.

During a typical day, I may see one or two patients who need urgent surgery. In the late afternoon, I book an emergency case for the operating room and I meet my senior fellow to see the patient before the operation. As he talks to the family, one of them voices their gratitude: "Thank you for figuring this out and getting him this surgery so quickly. We were so worried when that emergency doctor and that nurse explained the situation earlier." I realise that I am "that nurse". Given the anxiety of the family, it would have been insensitive to correct them. What does it matter that I had introduced myself as "Doctor" and had spent an hour with the patient discussing the diagnosis and arranging the operation? A few months into my residency, I've already learned to brush such comments aside. At my level of training, I accept that recognition and praise should be given to more experienced colleagues who have better clinical decision-making skills. However, when will I feel confident with my skillset? When will the public?

I wonder if the public considers gender when choosing a surgeon or anticipating the success of surgery. A study in *The BMJ* showed better postoperative outcomes for

patients of female surgeons than male surgeons. I had found the study was personally valuable, both to augment my confidence and to acknowledge my gradual and eventual recognition as a competent and capable surgeon. But when I talk about these findings during a break, someone suggests that studying gender differences is a waste of funding and time and only perpetuates sexism. I feel disheartened again. It's at times like these when I wish I had more female mentors and colleagues in surgery.

The work day is over and I finally return home to my fiancé, also a surgical intern. I look at the increasing pile of dishes in our sink, and always wonder, "who's had the tougher week and who should be cleaning this apartment?" Thankfully, I have found someone who has zero expectations for me to be the doting, domestic wife to his successful career. And yet that is not the universal perception.

During residency interviews this past year, I encountered an interesting question: "How will you handle being a woman in a demanding and busy surgical field?" What was I to do, except mention about my female mentors or my effectiveness at time management. I was surprised by the question. I was also disappointed after talking with other women who showed a tired recognition of an all-too-common shared experience. There are stereotypes about how a man or woman will dedicate time to their career or their family. Despite our 21st-century sensibilities, these biases persist to haunt both career-oriented women and family-oriented men.

The question of work–life balance is one that concerns many people. Women in medicine often struggle with this balance early in their careers if they have a child during their twenties or thirties. After pregnancy and nursing, it would be logical and fair to assume that both mother and father would share an equal responsibility for the care of their child. Yet some people continue to fall into patterns associated with a male breadwinner and a female homemaker, with an uneven distribution of hours spent in the office or on household chores. Sometimes guilt may arise when there are deviations from these societal expectations, when mothers would rather stay late at work or fathers are eager to return home.

One study of parental leave for general surgery residents in the USA highlighted how maternity leave was most frequently reported as 6 weeks and paternity leave was most frequently reported as 1 week. In the same study, 61% of general surgery programme directors believed that parenthood negatively affected female trainees' work, whereas only 34% believed the same for male trainees. These responses could be reflections of true experiences, yet this statistic could be ammunition to fuel biases. The quality of work by a resident who has become a parent should not be judged on the basis of gender. Although mothers have the heavier biological burden during pregnancy, both parents can contribute equally to raising a child. Unspoken promotion concerns during the evaluation of a female candidate should never include potential time lost to future pregnancies or child care obligations. The career trajectory of a female surgeon should not be tainted by stereotypes or societal gender roles.

Current events such as calls for increased transparency around promotions, action on the gender pay gap, and even the #MeToo social media movement have raised the profile of gender equality in several professions. I did not think much about the role of gender in the medical profession until I began training and shared experiences with older female surgeons. I have heard so many of their stories—some inspiring, some outrageous and upsetting—and yet they are not my stories to share. What ultimately resonated with me was the necessity of sharing stories, despite the trepidation associated with sharing them.

Surgical residency can be challenging on its own, but female surgeons may face the additional obstacle of not finding enough support from other women in male-dominated fields. The surgical team is your family away from home; most waking hours are spent in the hospital working alongside and communicating with your fellow residents and staff. These residents can be your closest confidants or simply your fiduciary colleagues. The long hours of work can be much more enjoyable when interests align and when conversations in the operating room are about work, hobbies, and personal stories.

In medicine, I think it is important for aspiring physicians to talk about our insecurities, frustrations, and aspirations. Where is the space for women to rant about inappropriate sexism, to receive mentorship about balancing motherhood and leadership, to boost confidence and morale? In professional fields where you do not see yourself reflected in the administration or leadership, it can make finding work–life balance all the more difficult as there is no clear path up the career ladder you can emulate.

Thoracic surgeon Gail Darling once told me: "During my training, it was very much 'Keep your head down and keep quiet.'" I am lucky that there is now less pressure to "keep quiet" thanks to the earlier generation of women in surgery and their persistent leadership; but it is important to remember their past and continuing struggles too. No matter how big or small the incident, how recent or how old, I hope all female surgeons will be able to share their injustices, their struggles, and their successes. What we lack in numbers we must make up with our proud and magnanimous voices.

Han Yan
Division of Neurosurgery, University of Toronto, Toronto, ON M5T 2S8, Canada
han.yan@post.harvard.edu

Further reading

Association of American Medical Colleges. Workforce reports. 2015. https://www-aamc-org.myaccess.library.utoronto.ca/data/workforce/reports/458712/1-3-chart.html (accessed Feb 20, 2018)

Minter RM, Gruppen LD, Napolitano KS, et al. Gender differences in self-assessment of surgical residents. *Am J Surg* 2005; **189:** 647–50

Royal College of Surgeons. Women surgeon statistics. 2017. https://www.rcseng.ac.uk/careers-in-surgery/women-in-surgery/mission-and-goals/women-surgeon-statistics/ (accessed Feb 20, 2018)

Sandler BJ, Tackett JJ, Longo WE, Yoo PS. Pregnancy and parenthood among surgery residents: results of the first nationwide survey of general surgery residency program directors. *J Am Coll Surg* 2016; **222:** 1090–96

Wallis CJ, Ravi B, Coburn N, Nam RK, Detsky AS, Satkunasivam R. Comparison of postoperative outcomes among patients treated by male and female surgeons: a population based matched cohort study. *BMJ* 2017; **359:** j4366