Why Aren’t There More Female Radiologists?

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By Deborah Abrams Kaplan

While women make up almost half of current medical students, they’re still not even a third of all radiology residents. And the numbers haven’t budged in the last decade.

A study on women in radiology presented at the ACR 2015 annual meeting found that since 2004, women consistently made up 27% of radiology residency programs, while 46% of all medical students are women. Women in leadership positions rose slightly from 2004–2014, with the percentage of women in the chair role at 9.6% in 2014, barely over the 8% figure from 2004.

“The proportion of women in radiology has been stagnant for the past 30 years, and that’s unique to radiology, because the other specialties have gone up. This seems weird because radiology is a controllable lifestyle (profession) you’d think would appeal to a lot of women,” said Lara Hewett, a fourth year student at the Medical University of South Carolina.

Hewett’s research on the proportion of women applying to MUSC's radiology program has been published in Academic Radiology. She analyzed seven years of applications to the MUSC radiology residency program to see if the proportion of women applying changed and if there was bias in gender selection in the number of women invited to interview.

“Our data matched national data,” she said, in that the proportion of women applying to radiology programs is stagnant or decreasing.

The study concluded that “the pipeline of female medical students pursuing a career in radiology appears to be a limiting factor, rather than a bias against women.”

Why Aren’t Women Entering Radiology?

While the list of potential reasons that women aren’t entering radiology is long, most of the concerns are misnomers, said Susan J. Ackerman, MD, president of American Association of Women in Radiology (AAWR), and also professor of radiology, division director of ultrasound, and vice chair for clinical affairs in radiology at the Medical University of South Carolina.

Exposure: One reason that women may not be choosing radiology is that they haven’t been exposed to it. Many school curricula don’t include radiology until the third or fourth year, a time when students may have already decided on a specialty, said Stephanie E. Spottswood, MD, a radiologist and vice-chair for diversity in the Department of Radiology at Vanderbilt University Medical School.

Role models: Female medical students may not see role models in radiology, the way they do in pediatrics, internal medicine, or surgery, Spottswood said.

Technology: “There are theories that are not so pertinent now, that women are afraid of the technology,” said Hewett. “Maybe that plays a small part, but I don’t think that’s a big part.” Julia R. Fielding, MD, agreed that some medical students are afraid of the high tech approach and physics components, but both women said that the medical students are all bright enough to learn these aspects.
Fielding is the chair of the ACR Committee for Women, and also a professor of radiology and chief of abdominal imaging at University of Texas Southwestern.

**Patient Contact:** The potential lack of patient contact is frequently brought up as a reason why women don’t choose radiology as a specialty. Medical students interested in patient contact and radiology should consider pediatric radiology and women’s imaging, said Hewett. “In both of those fields, the physicians talk to each other all the time. Communication is a huge part of that, and people don’t see that,” she said. Interventional radiology is another area with a lot of patient contact, said Ackerman.

**Long Training:** Generally, radiology residency is five years, not including fellowship, said Ackerman. “That puts some people off as they would like to be finished with residency earlier,” she said. Most leaving medical school have high debts, said Fielding, and some of the other options like internal medicine, family medicine, and pediatrics only require a three year residency. “That makes a big difference.”

**Competition:** Radiology has traditionally attracted the best and the brightest, said Fielding, and women generally don’t like competition. “They seem to lack that gutsy attitude you need to have,” Fielding said. While radiology applications have fallen in the past two years given declining radiology reimbursement, Fielding said she hoped there would be an uptick of female radiology applicants, but that hasn’t happened.

**Encouraging Female Medical Students to Enter Radiology**

Radiology isn’t usually part of medical school curricula until late in the third or fourth year, said Ackerman. “We should expose them to radiology early on, both women and men,” she said. “Those schools that have focus groups and programs to do this tend to have more applicants in radiology.”

It’s not just earlier exposure that matters, though. The way schools teach radiology is problematic, said Hewett. “When you do radiology in most curricula, you sit behind the resident or attending and watch them read films. You don’t see the part they play in patient management,” she said, including during many radiology rotations. She recommends that radiology programs show different aspects of their jobs, like discussing cases at tumor boards with other specialties, or calling surgeons to make recommendations based on imaging findings. “If more women saw that, they’d think what I thought, that this is perfect. Radiologists play a huge role in patient management,” Hewett said.

Hewett said her friends going into other specialties are surprised she chose radiology, including those who are currently doing radiology rotations. They’ve told her “I can’t see you doing this. You’re so good with patients, you seem to love people. But all they’re doing (in rotation) is sitting behind residents in the reading room. It’s like watching people play video games,” she said.

Both MUSC and Vanderbilt have modules where medical students learn anatomy using ultrasound, and MUSC uses correlative imaging as well in pathology classes, said Ackerman. At Vanderbilt they learn how to use a transducer and scan patients, Spottswood said, noting that a woman radiologist leads the session. MUSC also has radiologists teaching first and second year ethics courses, said Ackerman.

While Spottswood said her radiology department doesn’t have a lot of involvement with the medical school, she allows students to shadow her at early stages of their careers. That includes medical students who aren’t able to fit in a radiology rotation. She attends receptions for new medical students and national conferences for student-run organizations, and lets students know informally about the shadowing, while handing out her business card. She plans to establish an elective where students from other universities can spend a month with her, doing a research project or just observing.

Showing radiology’s impact to students is important, said Fielding. For years many schools didn’t have a radiology rotation. “Over the years, radiology became indispensable. It’s better than any other tool for diagnosing appendicitis,” she said. “Every cancer patient, every trauma patient is handled with imaging. The junior people figured this out. They realized that’s where a lot of the decisions were being made. But the people who make the curriculum feel that radiology doesn’t need to be a required course. I would disagree with
Making Female Radiologists Role Models

Supporting her female radiology faculty's careers, Spottswood said, is a good way to get more women in radiology. “If we develop the female faculty in an academic environment that's culturally supported, and help them get promoted and into leadership positions, the likelihood is greater that medical students will see us as role models and perhaps choose radiology as a career,” she said. Spottswood added that female role models have had tremendous influence on women choosing to enter internal medicine and surgery in recent years.

To do this, Spottswood and her colleague Lucy Spalluto, MD, surveyed female radiology faculty members about perceived barriers to advancement, gender equality, and their needs for research and teaching. They then put together a curriculum of 14 educational modules addressing the responses.

“A lot of faculty didn't know the track to promotion and advancement,” she said. Last January, they started regular dinner meetings for Vanderbilt's women in radiology, bringing in speakers on topics like how to get promoted, developing an educational portfolio, and work-life balance. While the dinners initially just included female clinical and research faculty, they now include fellows and nurse practitioners.

Topics like these are also addressed at a national level at gatherings like the recent RSNA meeting. The AAWR presents sessions on similar topics, including career building and negotiating contracts. Fielding said that AAWR is where she gets all her networking help. “It's like having a club,” she said. “You meet the people who give you positions, who have the experience.”

Spottswood encourages women to take leadership training courses, to put themselves in a better position for advancement. She recommends programs through the Association of American Medical Colleges and Executive Leadership in Academic Medicine (ELAM) at Drexel. “They produce women who are so knowledgeable that they're more likely to attain senior leadership administrative positions than those who are not,” she said.

The discrimination happening now is by omission, said Fielding. “Since there weren't any women in leadership positions for so long, no one thinks to put them there,” she said. “If you’re female, you have to ask. I had to ask to be vice chair,” she said, and her chair responded that he wouldn't have thought to put her in that position. She said that people tend to hire those who are like them.

Seeing women in radiology positions makes a big difference to medical students, said Hewett. “No one wants to be the only woman in the environment,” she said. While there don't have to be a lot of women, female medical students need to see that if they join a residency program, they won’t be the only female, and the women will be good advocates. She said the last decade’s surgery literature showed that when female medical students saw happy women in the residency program during interviews, they realized they could be happy in that program too.

Mentorship

Hewett said that while she knew she wanted to be a radiologist early in medical school, she sought out a mentor to find out what she needed to do to position herself for her residency. She also did her research project with her mentor.

If a student wants a mentor, they need to make it a high priority, said Fielding, because there are many competing priorities. If done right, mentorship isn’t easy for the mentor, and it’s time consuming. “They need to be able to show me that’s it’s a give and go,” Fielding said. “If I’m going to work with someone, I want you working in radiology, doing a project with me. It has to be both ways. You have to show actual interest, but also true skill.”

As for the future of women in radiology, those interviewed thought there was promise. “I think that as medical school curricula changes, it’s now on people's brains,” said Hewett. “I think it will start to change the way that surgery did. They'll get to see radiology as part of the patient care team. In my opinion, that's what the crux of it is.”
Who cares? Why waste time trying to find the err in our ways when every niche in this world isn't equally represented by all? Unless you convince me the radiology specialty is coveted somehow by males to the detriment of females then you are wasting my time. Time would be better spent correcting the ubiquitous poor wording in Radiology reports.

Doug @ Mon, 2015-12-21 00:36

How about women have figured out the job market in radiology!!!

Azi @ Fri, 2015-12-18 22:26

I disagree with the idea that radiology is a controllable lifestyle specialty. I am a female attending radiologist and take a large amount of call-including overnights and weekends. And I am not the exception.

Julie @ Fri, 2015-12-18 13:13

This is not true in Italy: there are more female residents than male.

Pietro @ Fri, 2015-12-18 13:12

It's 50-50 in Malta

Sandro @ Sun, 2015-12-20 13:31

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